

Missouri House of Representatives



Interim Committee Report *on* **MINING**

SUBCOMMITTEE ON COAL

December, 1986

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MISSOURI
HOUSE OF REPRESENTATIVES
JEFFERSON CITY 65101

Honorable Frank Ellis, Chairman
House Interim Committee on Mining
Room 313A Capitol Building
Jefferson City, Missouri 65101

Dear Representative Ellis,

Attached please find the report of your House Interim Committee on Mining Subcommittee on Coal. The report contains several recommendations that might be considered and acted upon by the standing House Committee on Mines and Mining.

Some of these recommendations are embodied in legislative proposals that currently are before the General Assembly, specifically House Bill 669 relating to land reclamation, which you co-sponsored, and House Bill 836, relating to the use of fluidized-bed boiler systems in state capital improvement projects.

On behalf of the subcommittee, I would like to express our appreciation to you for providing the opportunity to examine the critical issue of coal production and use in the state of Missouri. I hope this report will mark the beginning of a renewed effort to develop indigenous coal resources so that energy dollars and jobs will be kept in the state.

Sincerely,

A handwritten signature in black ink, appearing to read "Don McQuitty", is written over the typed name.

Representative Don McQuitty, Chairman
House Interim Committee on Mining
Subcommittee on Coal

House Interim Committee
on Mining

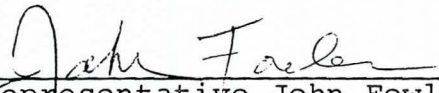
Subcommittee on Coal



Representative Don McQuitty, Chairman
District 12



Representative Bob Ward
District 151



Representative John Fowler
District 3

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House Interim Committee on Mining Subcommittee on Coal

On September 7, 1986, the Honorable Bob F. Griffin, Speaker of the Missouri House of Representatives, authorized the establishment of a Subcommittee on Coal within the House Interim Committee on Mining. The purposes of the Subcommittee were to examine the state of the coal industry in Missouri, to identify impediments to greater coal consumption, and to make recommendations for appropriate state action. The Subcommittee was composed of three members: Representatives Don McQuitty (D-12), Macon, Chairman; Bob Ward (D-151), Deslodge; and, John Fowler (R-3), Newtown.

The Subcommittee met three times: September 15; September 16; and, October 2. All hearings were held in Jefferson City. State environmental regulatory officials and representatives of the coal mining industry and the electric utilities were invited to testify (See Appendix A). Representatives of the Department of Natural Resources' Division of Geology and Land Survey and Division of Energy presented testimony that was primarily informational in nature. The testimony included data on recoverable coal reserves, production and consumption levels and trends and a list of major coal users and producers.

BACKGROUND

Coal Production

Missouri ranks 19th among the 27 states that produce bituminous coal. Over the past decade, coal production in the state has averaged approximately 6 million tons per year. The state has sufficient recoverable coal reserves to support a potential annual production of 28 million tons for a period of 30 years.

At present, roughly 60 percent of the state's total annual production is mined in Randolph and Howard counties. The southwest area of the state, in particular the counties of Bates, Vernon and Barton, accounts for 24 percent of total annual production. Another 10 percent is mined from the Tebo field located primarily in Henry county with a majority of the balance coming out of Putnam and Monroe counties.

Coal Consumption

Approximately 90 percent of the 5.4 million tons of coal produced in Missouri in 1985 was consumed by four mine-mouth power plants. The remaining 10 percent of Missouri-produced coal was consumed on the electric utility spot-market and at smaller

municipal and state-owned power plants in north-central and western Missouri.

Electric utility power production represents the most significant use of coal in the state. Of the 23.5 million tons of coal from all sources that were consumed in Missouri in 1985, electric utilities accounted for 22 million tons or 94 percent of the total. Although electric utility consumption has increased from just under 7 million tons in 1967 to over 23 million tons in 1985, more than a threefold increase, the share of Missouri coal being burned at these facilities has fallen from approximately 46 percent to 21 percent during the same period (See Appendix B).

Coal from Illinois, which supplies major power plants in the St. Louis area, currently accounts for 61 percent of the total coal consumed in Missouri. The strip mines of the Powder River Basin in Wyoming, a large source of low sulfur coal which has gained an increasing share of the market in recent years, now constitutes 16 percent of the Missouri market.

Characteristics of Missouri Coal

Missouri coal is relatively high in sulfur content. More than three-quarters of the reserves in the state contain coal with a sulfur content ranging from 3 percent to 5 percent. The combustion of coal releases sulfur dioxide to the air. Sulfur dioxide has been identified as a precursor in the formation of acid precipitation. The federal Clean Air Act and the state Air Conservation Law limit emissions of sulfur dioxide from various sources to certain levels. In order to burn high sulfur coal, emission control technologies, which are both expensive to install and to operate, may have to be employed.

Missouri coal also is relatively high in ash content, averaging around 11.5 percent. The ash, which eventually must be disposed of, may contain trace amounts of heavy metals and radioactive elements. When taken together with flue-gas emission control wastes, disposal of these waste materials becomes a problem from both an environmental standpoint and simply in terms of the volume which must be handled and the amount of land area needed for disposal.

Coal deposits in Missouri generally are found in relatively thin seams, ranging in thickness from 12 to 42 inches. These seams may be overlain by large amounts of soil and rock, or overburden as it is called, which increases excavation and land reclamation costs. Missouri coal can be economically competitive when it is consumed by power plants located in close proximity to the mine where it is produced. These mine-mouth operations may save as much as 25 percent on the price of coal as a result of the reduction in transportation expenses.

Missouri coal has the advantage of having a high heat value.

Heat values range from 10,000 BTUs (British Thermal Unit) per pound to 12,500 BTUs per pound on an "as received" basis. A high heat value means that as the coal burns it releases a greater amount of heat energy compared with the amount of energy released when burning the same amount of other kinds of coal. Put another way, a lesser amount of Missouri coal is needed to receive the same energy output.

Coal Economics

The actual cost of using coal as a fuel source depends on several factors. The cost of mining coal represents approximately 30 percent of the total cost of using it. Expenses for exploration, land acquisition and the purchase of mining and processing equipment determine the upfront costs. However, other factors also must be considered, such as land reclamation costs, thickness of the coal seam, quality of the coal and transportation to the point of use. Once the coal has been mined and transported, there may be other costs related to burning the coal. These costs include pollution control equipment and operation as well as the disposal of resultant waste.

The demand for coal depends to a large degree on the relative cost of substitute fuels. As the cost of oil rose in the late 1970s and early 1980s, the demand for and subsequently the production of coal increased. So to, as the price of oil has fallen in recent years, the demand for coal has tapered off.

The average price for a ton of Missouri coal received at the mine has remained relatively constant at about \$25 for the last few years. At this price, the coal industry has contributed annually between \$130 million to \$170 million worth of direct economic activity to the state. At a record production level of 6.8 million tons in 1984, the coal industry employed over 1,200 miners who earned about \$35 million in wages. This wage payment reverberated through the economy, providing an additional 600 jobs in support services and generating additional revenue of more than \$64 million in business, industry and tax receipts. The bulk of this economic activity takes place in the small rural communities where the mines are located. In many instances and to a significant degree, these communities have come to depend on the mines for their economic survival.

Environmental Regulation

The mining of coal and its subsequent use are regulated under three main environmental programs; land reclamation, air conservation and water pollution control. A separate commission is responsible for the oversight and administration of each of the three programs. All three programs are carried out by personnel of the Division of Environmental Quality within the Department of Natural Resources.

Coal mining operations are most heavily regulated by the requirements set forth in accordance with the Land Reclamation Act, Chapter 444, RSMo. The state Department of Natural Resources is authorized to conduct a state program by the Office of Surface Mining within the U.S. Department of Interior under the federal Surface Mining Control and Land Reclamation Act of 1977, P.L. 95-87, 30 USC 1201, et. seq. The purpose of the act is "to assure that surface coal mining operations are so conducted as to protect the environment" and "that adequate procedures are undertaken to reclaim surface areas as contemporaneously as possible..." The state land reclamation program also is responsible for the reclamation of abandoned mine lands.

The air conservation program regulates emissions from coal-fired electric power plants under the state Air Conservation Law, Chapter 203, RSMo, as authorized by the U.S. Environmental Protection Agency (USEPA) under the federal Clean Air Act, P.L. 88-206, 42 USC 1857, et. seq. The emission control standards limit the amount of particulate matter and sulfur dioxide (SO₂) which may be released to the air. The sulfur dioxide emission control standards, particularly the performance standard for new sources, constrain the use of high sulfur Missouri coal. Recent "acid rain" legislation introduced in the U.S. Congress would require further reductions in SO₂ emissions from coal-fired facilities in the state. These reductions could have a significant impact on the state coal mining and electric utility industry.

Coal mining is also regulated under the state Clean Water Act, Chapter 204, RSMo. The water pollution control program regulates acid mine drainage, discharges from sediment ponds, pit pumping, coal washing, and surface water runoff. The state program is authorized by USEPA under the Federal Water Pollution Control Act (more commonly known as the federal Clean Water Act), P.L. 92-500, 33 USC 466, et. seq. Weekly monitoring of active mine operations and monthly monitoring of post-mining areas are required under the program and conducted in coordination with the land reclamation program. To a much lesser extent, most coal mining operations and coal-fired electric utilities are regulated under the state solid and hazardous waste laws.

SUMMARY OF TESTIMONY

Acid Rain

Several witnesses who testified before the Subcommittee addressed the issue of acid rain and the potential impact of pending federal legislation on the electric utility and coal mining industries of the state. Proposals to control acid rain currently before the U.S. Congress would require substantial reductions in emissions of SO₂ and would force significant increases in rates

for electricity. Missouri, Illinois, West Virginia, Ohio, Indiana and Pennsylvania would be among the states most affected by acid rain controls.

In a study prepared by Management Information Systems, Inc., analyzing current federal acid rain proposals, it was determined that electric utility rates for Missouri consumers would increase an average 6 percent under the House bill and 13 percent under the Senate version. A draft report on SO₂ reduction alternatives at 13 selected Missouri utility power plants prepared by Energy Ventures Analysis of Arlington, Virginia, for the state Department of Natural Resources found that coal switching and forced oxidation wet limestone flue gas desulfurization (FGD) scrubbing were likely to be the most cost-effective of the currently demonstrated technologies.

According to officials of the Department of Natural Resources, the severity of the impact of the proposed controls on the electric utility and coal mining industry of the state far exceeds the benefits gained in limiting the relatively small contribution that SO₂ emissions from Missouri sources represent in the damage caused by acid deposition in the northeast United States and Canada. The results of a long range transport modeling project conducted by the New York State Department of Environmental Conservation and a study prepared by the Center for Air Pollution Impact and Trend Analysis (CAPITA) at Washington University in St. Louis for MDNR indicate that Missouri emissions represent less than 2 percent of the total sulfur deposition occurring in the Northeast. The contribution of Missouri sources to the deposition in the Northeast is much less than Missouri's "share" of actual sulfur emissions. The CAPITA report concludes, "It also follows that sulfur reductions in the state of Missouri will yield small reductions to the deposition in the Northeast."

A resolution passed by the Missouri Air Conservation Commission points out that Missouri's contribution to the acid rain problem is small, that coal or fuel switching could result in the displacement of large numbers of coal miners and the loss of other related jobs and that the installation and operation of FGD scrubbers would cost about \$4 billion over a ten year period, produce large amounts of potentially hazardous sludge and increase the cost of electricity to Missouri consumers (see Appendix F). The Commission supports the reduction of SO₂ emissions by precombustion sulfur removal which could achieve an immediate 2 to 3 million ton SO₂ reduction nationwide. The Commission also supports additional research on emission control and clean coal technologies such as fluidized-bed combustion, limestone injection and coal gasification.

Land Reclamation

Another area of concern which was discussed during the course of the Subcommittee hearings involves the Coal Mine Land Reclamation Fund and bonding requirements. Under Chapter 444, RSMo, all surface coal mine operators are required to obtain a surface coal mining and reclamation permit. Prior to the commencement of any mining activity the operator is required to post a performance or surety bond in an amount sufficient to assure the execution of the land reclamation plan should that work have to be performed by the state in the event the operator is unable to complete the plan.

In 1982, under Senate Bill 737, the General Assembly provided a measure of flexibility in the bond requirements by allowing cash, irrevocable letters of credit, negotiable bonds of the U.S. government or of the state of Missouri, or negotiable certificates of deposit to be used by an operator in lieu of the performance or surety bond as long as the market value of such instruments was equal to or greater than the amount of the required bond.

Senate Bill 737 also established a separate Coal Mine Land Reclamation Fund. Monies in the fund were derived from bond forfeitures and additional funds were provided through the assessment of a tonnage tax. An assessment of 35 cents per ton for the first fifty thousand tons and 20 cents per ton for the next fifty thousand tons "sold, shipped or otherwise disposed of" within the calendar year was imposed. The fund was allowed to build up to \$3 million after which point the assessment was suspended. The assessment was reinstated when the fund fell below \$2 million. A 25 percent surcharge was allowed to be imposed whenever an expenditure was made from the fund for reclamation activities until those funds were recouped.

In 1986, in the wake of several failures and pending failures within the coal mining industry which placed a heavy burden on the reclamation fund, the General Assembly again modified the law. The pit reclamation bond was increased to a maximum of \$2,500 per acre from \$500 per acre and the ceiling on the fund was increased to \$7 million or \$2,500 times the number of acres within the state that have been mined but not yet reclaimed, whichever amount is greater. These changes apply to those areas for which a permit had not yet been issued or for which a permit had been issued but upon which work had not yet begun as of the effective date of the act.

Although these changes will help to alleviate future demands on the reclamation fund, a crisis still looms for the reclamation of those areas mined by companies that have gone out of business or are on the verge of collapse who are or will be unable to execute their reclamation plan. The amount estimated to carry out the necessary reclamation work for the two companies that have failed exceeds the combined sum of the forfeited bonds and monies available in the reclamation fund. The current situation presents a type of "catch-22" in that additional funds are needed to carry out land reclamation work; these funds can only be generated

by increased production and increasing bonding requirements; increasing bonding requirements may actually inhibit production.

A task force made up of coal operators, representatives of the federal Office of Surface Mining (OSM), the state Land Reclamation Commission and the Missouri Mining Council has been meeting to study the dilemma and find a solution to the problem. A similar effort is being conducted at the federal level since the land reclamation problem is national in scope.

One witness pointed out that the requirements of the federal surface mining law are "technology forcing" in the sense that certain elements of the federal program are not achievable using state of the art equipment and methods. In order to meet these requirements, new technology and new methods will have to be developed.

Several witnesses indicated that the coal mining industry preferred to have a strong state program that is pro-environment without being anti-industry. It was suggested that state officials use their influence to convince the Missouri delegation in Congress to send a message to the federal government that the land reclamation program is hurting the mining industry. It was also suggested that a provision to ensure that the state land reclamation program was no more stringent than federal requirements be considered.

One witness recommended restructuring the Land Reclamation Commission to include representatives of the mining industry and the Department of Agriculture. It was suggested also that authority for administering the land reclamation program be transferred to the Soil and Water Districts Commission to be operated as or in conjunction with the soil and water conservation program.

Other Issues

Transportation - The Subcommittee received testimony regarding the high cost of transporting coal within the state which puts state mined coal at a competitive disadvantage when compared with coal imported from other states, particularly Illinois. These high costs presumably result from high intra-state shipping rates for coal compared with lower inter-state rates as well as size and weight limitations on state roads and bridges which necessitate circuitous routing of coal hauling vehicles.

Mandated Use of State Coal - Several states in the midwest have enacted statutes requiring certain facilities in the state to use state mined coal. Oklahoma requires all facilities which generate electricity in the state to use at least 10 percent state coal. In general, there appears to be opposition to any proposal that would require coal users in Missouri to use a fixed percentage of Missouri mined coal in their operations.

Several witnesses argued that mandated coal use would:

- (1) Increase fuel costs, thereby increasing electric utility rates;
- (2) Require the purchase of coal handling and blending equipment;
- (3) Require emission control equipment such as SO₂ scrubbers which are expensive both to install and to operate; and,
- (4) Increase costs for disposal of the resultant fly ash.

SUMMARY

In the past few years, Legislatures in several midwest states, including Illinois, Indiana, Iowa, Kansas, Ohio and Oklahoma, have initiated efforts to expand existing markets and to create new ones for coal mined in their states. Although Missouri coal suffers from certain characteristics, such as high sulfur and ash content, thin seams and large overburden, which place it at a competitive disadvantage compared with coals from other states, there are steps that can be taken to increase the use of Missouri coal in an economical and environmentally acceptable manner.

Ninety percent of Missouri's total annual energy expenditures of \$10 billion leaves the state. By increasing the state's share of the Missouri coal market and by exploring opportunities for exporting Missouri coal to other states and nations, a more favorable energy balance will be developed; more of the state's energy dollar will remain in the state to increase the level of general economic activity and to create new jobs.

RECOMMENDATIONS

In order to increase the demand for Missouri coal, it will be necessary to remove several barriers that currently exist which inhibit its production and greater utilization. The Subcommittee recommends that:

- (1) The General Assembly support the resolution of the Missouri Air Conservation Commission and the policy statement of the Department of Natural Resources regarding proposed federal legislation to control "acid rain".
- (2) A resolution be adopted by the General Assembly which expresses the state's position on the "acid rain" issue and that this resolution be sent to the U.S. Congress, the appropriate congressional committees holding hearings on pending federal "acid rain" legislation, and to the Missouri congressional delegation.
- (3) A state Coal Commission or Coal Development Board be established to encourage development of the state coal industry by identifying impediments to and making recommendations for greater use of state coal resources.
- (4) State funds be made available to support research on "clean

coal technologies" and that these funds be allocated to and distributed by the Division of Geology and Land Survey through contract for projects within the state university system.

(5) The Division of Design and Construction within the Office of Administration be required to consider the use of advanced technologies, such as fluidized bed combustion, limestone injection, and combined cycle/coal gasification for all new boiler installations and boiler retrofits at state facilities.

(6) The Division of Transportation within the Department of Economic Development be required to conduct a review of intra-state shipping rates and routing requirements to determine whether and to what extent these result in higher transportation costs for intra-state shipments of Missouri coal and the manner in which this affects demand when compared to the cost of coal imports in various parts of the state.

(7) The Public Service Commission be directed to allow coal-fired electric utilities to recover as operating expenses those costs associated with research and development activities which are designed to increase the utilization of Missouri coal and to include in the rate base as construction work in progress (CWP) the associated costs for boiler modifications, coal washing facilities, installation of emission control devices and related FGD sludge removal equipment.

(8) The General Assembly provide tax incentives to utilities and industries that invest in coal cleaning or washing facilities, coal conversion methods, flue gas desulfurization techniques or equipment. The tax incentive could be structured to allow for a deduction from the assessed value of any such system in an amount proportional to the use of Missouri coal compared to total coal usage of the facility.

(9) The state surface coal mining statute be amended to include a provision requiring that rules and regulations promulgated under state law be no more stringent than federal requirements.

(10) The Commissioner of Administration review the purchasing practices of state institutions and ensure that they are in compliance with the provisions of section 34.080, RSMo, requiring state supported institutions that buy coal for fuel purposes "...to purchase and use coal which is mined in the state of Missouri,..." provided that Missouri coal is no greater in cost than coal from any other state, including transportation costs.

(11) The Department of Highways and Transportation consider the use of Type F fly ash as a soil stabilizer and asphalt additive in road projects.

(12) The General Assembly explore and consider membership and participation in the Mississippi Valley Coal Council.

(13) The General Assembly provide production tax credits or similar tax incentives for companies which use Missouri mined coal and limestone in the production of coal fuel pellets.

(14) The Public Service Commission be directed to prohibit electric utilities from including transportation costs in automatic fuel adjustments.

(15) The Department of Economic Development undertake a study of potential markets for the export of Missouri mined coal overseas.

APPENDICES

Appendix A: List of Witnesses

Appendix B: "Missouri Coal Resources, Production, Consumption, and Trends", Missouri Department of Natural Resources, Geological Survey Program, September 22, 1986.

Appendix C: "Missouri Coal", Missouri Department of Natural Resources, Division of Geology and Land Survey. (Brochure)

Appendix D: List of Missouri Coal Companies

Appendix E: List of Missouri Coal Users

Appendix F: Resolution of Missouri Air Conservation Commission on Acid Rain, Adopted July 26, 1984.

Appendix G: Letter of W. E. Marbaker II, Executive Secretary, Mining Industry Council of Missouri, to Representative Don McQuitty, Chairman, House Interim Committee on Mining Subcommittee on Coal, October 1, 1986.

Appendix H: Letter of Charles S. Means, P.E., Supervisor, Environmental Engineering, Associated Electric Cooperative, Inc., to Representative Don McQuitty, Chairman, House Interim Committee on Mining Subcommittee on Coal, September 25, 1986.

Appendix I: Letter of Richard E. Malon, Director, Water and Light Department, City of Columbia, to Representative Don McQuitty, Chairman, House Interim Committee on Mining Subcommittee on Coal, September 25, 1986.

Appendix J: Statement of Russell Stilwell, Legislative Coordinator, United Mine Workers of America, before the House Interim Committee on Mining Subcommittee on Coal, October 2, 1986.

Appendix A

House Interim Committee on Mining Subcommittee on Coal

List of Witnesses

September 15, 1986

Bill Ford, Director
Division of Environmental Quality
Department of Natural Resources

Ron Kucera, Deputy Director
Department of Natural Resources

Bob Clark, Director
Land Reclamation Program
Department of Natural Resources

Nick Nikkila, Director
Air Conservation Program
Department of Natural Resources

Charles Stiefermann, Director
Water Pollution Control Program
Department of Natural Resources

Kimery C. Vories
Associated Electric Cooperatives, Inc.

Charles Means
Associated Electric Cooperatives, Inc.

David M. McCoy
Kansas City Power and Light

Wayne R. Johnson
Kansas City Power and Light

Jim Williams, Director
Division of Geology and Land Survey
Department of Natural Resources

September 16, 1986

Cindy Carroll
Division of Energy
Department of Natural Resources

William E. Marbaker II, Executive Secretary
Mining Industry Council of Missouri

October 2, 1986

Arlie Roesener
City Utilities of Springfield

Thomas F. Hill
Board of Public Works
Marshall Municipal Utilities

Ronald Powell
City of Columbia
Department of Water and Light

Gary Anderson
City of Columbia
Department of Water and Light

Bob Jackson, Director
Division of Energy
Department of Natural Resources

Jerry Vineyard, Assistant State Geologist
Division of Geology and Land Survey
Department of Natural Resources

Russell Stilwell
United Mine Workers

Lanny G. P'Poole
Burbridge Coal, Inc.
Missouri Coal Fuels Co.

Appendix B

MISSOURI COAL RESOURCES, PRODUCTION, CONSUMPTION & TRENDS

Missouri Department of Natural Resources
Geological Survey Program
September 22, 1986

RESOURCES vs. CONSUMPTION

Missouri has measured recoverable coal reserves adequate to support a potential annual production of 29 million tons for 30 years, but current annual production is about 5 million tons, and declining. Coal consumption in Missouri is currently about 23 million tons per year, which is being supplied primarily by coal shipped in from Illinois, Wyoming, and other states. Coal consumption continues to increase, while coal production in Missouri is on the decline.

The primary use of coal in Missouri is for power production by electric utilities, which generate 94 percent of the State's electricity needs by burning coal. Nationally, the figure is 85 percent; Missouri coal consumption for power production rose from 6.9 million tons in 1967 to over 22 million tons in 1985 (illustration 1). However, while total coal consumption has more than tripled, Missouri's coal production has increased by only a third; the lion's share of the Missouri energy dollar has gone to other states.

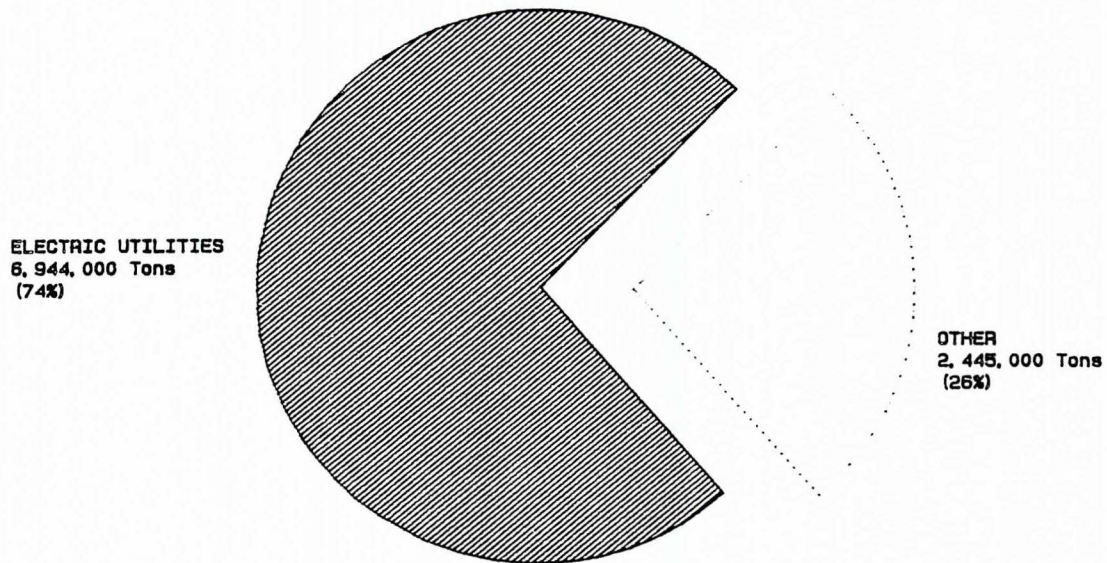
MISSOURI COAL PRODUCTION AND TRENDS

Missouri coal production increased steadily from 1967 through 1977, reflecting the rising demand for electricity and the construction of three mine-mouth, coal-fired power plants: Thomas Hill in Randolph County; LaCygne in Linn County, Kansas (using Missouri coal); and Asbury in Jasper County. Production peaked in 1977 and 1979 (illustration 2), coinciding with the energy crisis and resulting shortages of oil and natural gas.

For the past five years, Missouri coal production has averaged about 5.5 million tons, except for 1984, when an all-time high of nearly seven million tons per year was reached. However, much of the record production has been attributed to stockpiling by electric utilities anticipating a major labor strike which did not materialize. Since then, production has declined from 5.5 million tons in 1985 to a projected 5 million tons in 1986.

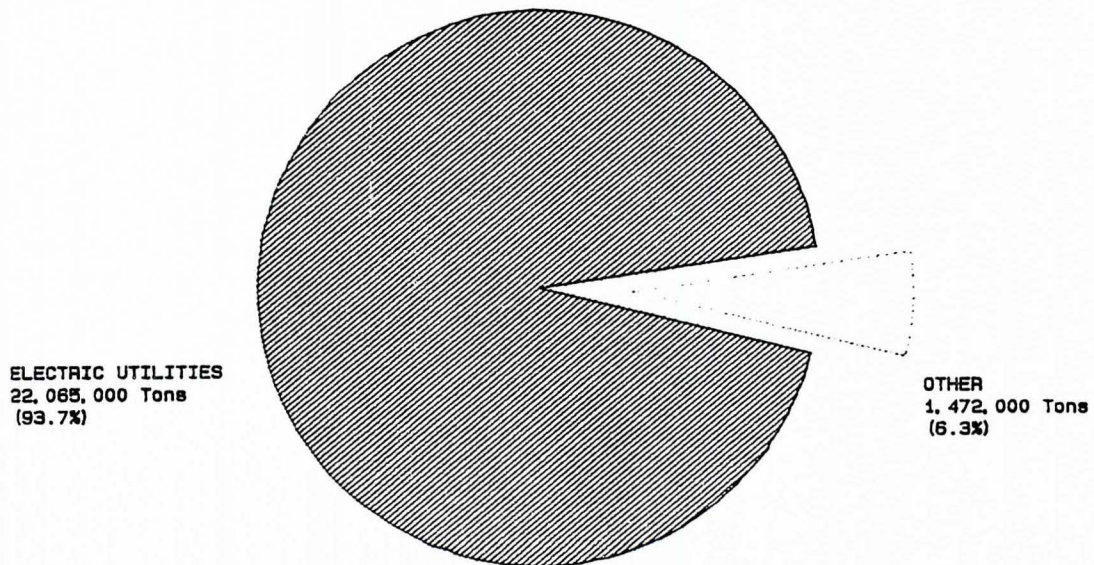
In 1985, the most recent year for which full production figures are available, 15 companies produced 5,458,589 tons of coal (see table 1). Three of these producers closed in 1985; production in 1986 is expected to be about 500,000 tons lower than 1985. In addition, Central West Coal Company in Vernon County has filed Chapter 11 bankruptcy and has greatly curtailed production.

COAL CONSUMED IN MISSOURI BY ELECTRIC UTILITIES



TOTAL CONSUMPTION 9,389,000

1967



TOTAL CONSUMPTION 23,537,000

1985

MISSOURI COAL PRODUCTION

1967 - 1985

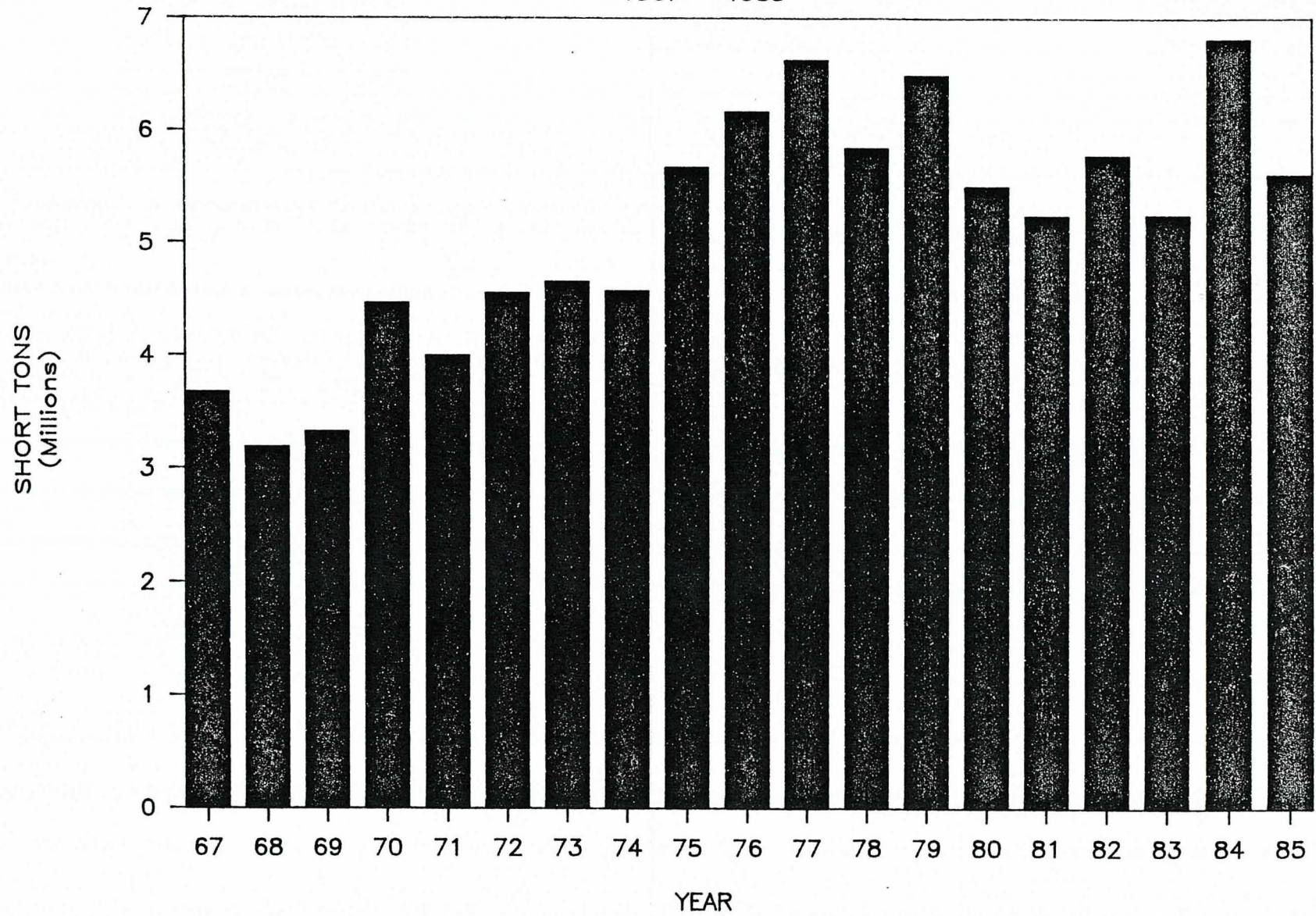


TABLE 1
MISSOURI COAL PRODUCTION 1985

<u>Company</u>	<u>County</u>	<u>Production</u>
Associated Electric Co-op	Randolph	1,718,300
* Bill's Coal Company	Vernon	336,648
Burbridge Coal Company	Monroe	96,275
** Central West Coal Company	Vernon	135,818
Missouri Leasing & Investment Company	Cooper	26,901
Missouri Mining, Inc.	Putnam	38,981
* Moniteau Valley Mine, Inc.	Randolph	4,802
NEMO Coal Company	Randolph	892,670
Peabody Coal Company	Henry	651,232
P & M Coal Mining (Empire Mine)	Barton	494,420
P & M Coal Mining (Midway Mine)	Bates	797,562
Universal Coal & Energy Company	Howard/Randolph	223,870
* Wyoming Fuel Corporation	Monroe	18,086
ACORN System, Inc.	Howard	5,021
Sunrise Coal Company	Bates	18,003
TOTAL		5,458,589

* Closed in 1985

** Filed for Chapter 11 bankruptcy

CONSIDERATIONS ON THE USE OF MISSOURI COAL

Using Missouri coal in Missouri power plants has both advantages and disadvantages:

Advantages:

- * Mine-mouth power plants minimize transportation
- * Btu content is relatively high (10,000-12,500 Btu/lb)
- * Production costs stimulate local economies
- * Mining jobs are available to Missouri workers

Disadvantages:

- * High sulfur content (4.5%) causes emissions problems; wet scrubbers may be required
- * Thin coal seams require greater disturbed areas during mining, causing higher reclamation costs

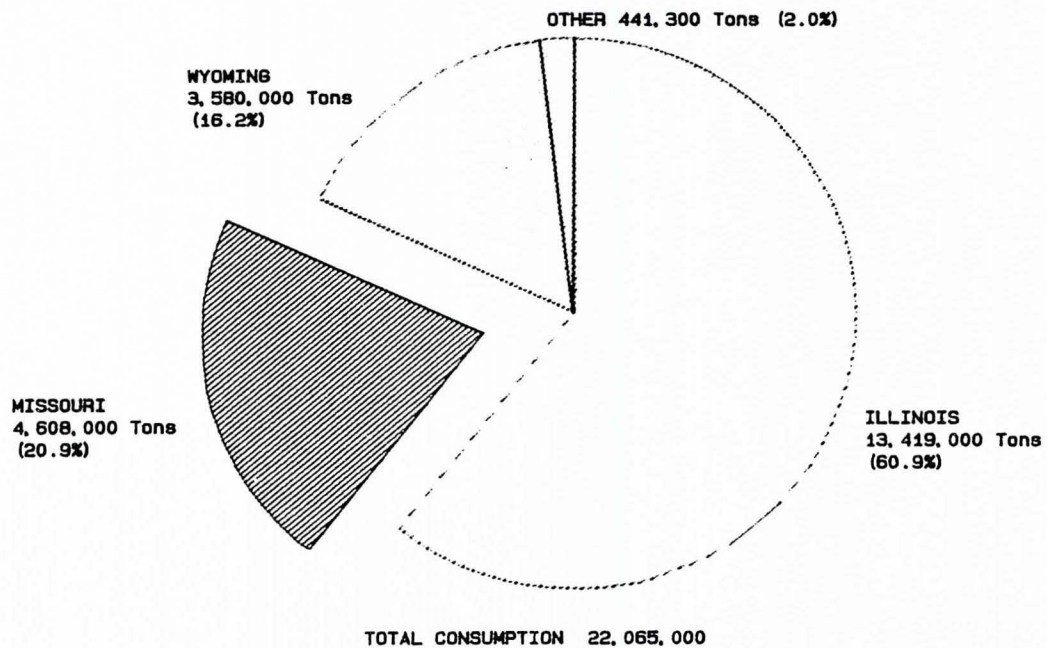
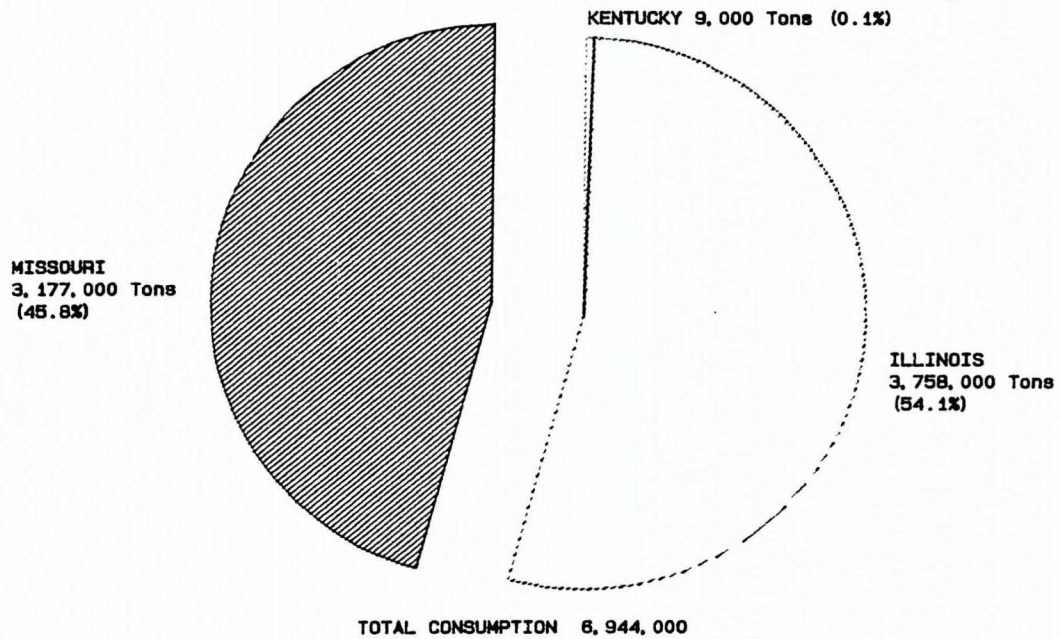
Missouri's principal competitors for the State's coal market are Illinois, which supplies major power plants in the St. Louis area for a 61% share of the market in 1985, and Wyoming, which now has 16% of the 22 million ton Missouri market and seems ready to increase its market share at the expense of Missouri coal (Illustration 3).

The primary reasons why Wyoming coal is gaining in the utility-coal market is its low (less than one percent) sulfur content. It can be burned without the need for expensive flue-gas scrubbers, which may add 40% to the cost of a power plant, and thereafter are extremely expensive to operate and maintain. These "wet scrubbers" also require a supply of crushed limestone that reacts with the sulfur in the stack gases to form a waste product called calcium sulfate, which must be stored on-site in waste-retention ponds.

WHO USES MISSOURI COAL?

Of the 5.4 million tons of coal produced in the state in 1985, approximately 90% was consumed by four mine-mouth power plants. The remaining part of Missouri's coal production was consumed on the electric utility spot-market and at smaller municipal and state-owned power plants in north-central and western Missouri. The future demand for Missouri coal will depend on the demand for electric power at these utilities.

ORIGIN OF COAL CONSUMED BY ELECTRIC UTILITIES IN MISSOURI



HOW MUCH COAL DOES MISSOURI HAVE?

Coal occurs in layers or "seams" in the bedrock of western and northern Missouri (see Mineral Resources Map, illustration 4). The Geological Survey has mapped coal-bed outcrops, measured the thickness of seams encountered in drillholes, and conducted analyses to determine coal quality in all of the coal-producing areas of the state. The data thus acquired have been published in numerous reports and shown on maps, for public use. In recent years, coal data have been computerized through development of the National Coal Resources Data System, in which DNR has been a leading participant.

In measuring coal remaining in the ground, geologists use terminology that defines and separates the limited amount of coal that is economically mineable from the vast resource base that is too thin and/or in discontinuous seams, to be mined (Illustration 5).

- | | |
|--|------------------|
| * <u>Resource base</u> : All coal in seams 14 or more inches thick, regardless of mineability | 47 billion tons |
| * <u>Recoverable reserves</u> : All coal in seams 28 inches or more thick, explored by drilling or mapping, and suitable for mining by current methods | 5 billion tons |
| * <u>Measured recoverable reserves</u> : Coal measured by detailed mapping using closely-spaced control points (usually drillholes), mine workings, and outcrops | 875 million tons |

The 875 million ton Measured Recoverable Reserves figure means that DNR's Geological Survey Program has reliable information on coal deposits that could sustain a 29 million tons per year production rate for 30 years, enough to sustain much more than the total annual coal consumption in Missouri.

COAL VS. COAL

The price of oil on the world market has a direct effect on the attractiveness of coal as a fuel. When oil prices are high, coal becomes a more economical alternative fuel. Conversely, when oil prices are low there is less incentive to develop technology for clean-burning coal. Illustration 6 shows the relationship between oil and coal prices since 1966.

Currently oil prices are about \$14/bbl for western Missouri oil; coal prices have held relatively steady.

MINERAL AND ENERGY INDUSTRIES IN MISSOURI

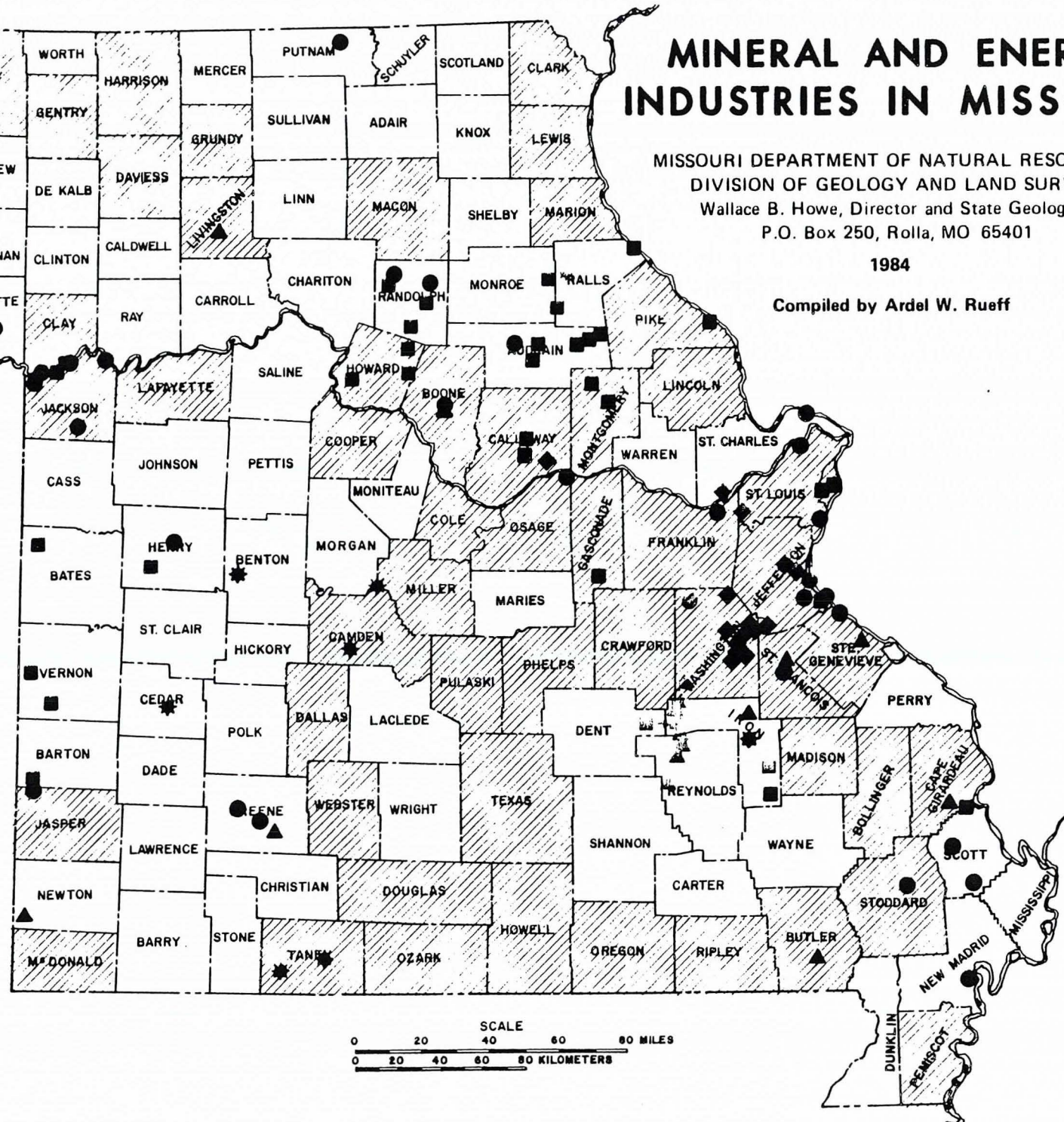
MISSOURI DEPARTMENT OF NATURAL RESOURCES
DIVISION OF GEOLOGY AND LAND SURVEY
Wallace B. Howe, Director and State Geologist
P.O. Box 250, Rolla, MO 65401

1984

Compiled by Ardel W. Rueff

LEGEND

- Absorbent Clay Products Plants
- ◆ Barite: Mines, Mills, Washers & Grinding Plants
- ▲ Brick & Tile Plants
- Cement Plants
- Coal Mines
- ▲ Dimension Granite Quarries
- Iron Mines & Pellet Plants
- ▲ Lead Mines & Mills
- Lead Smelters
- ◆ Lightweight Aggregate Plant (Expanded Shale)
- ▲ Lime Plants
- Marble & Terrazzo Quarries
- Plate Glass Plant
- Refractory Clay Plants
- Roofing Granule Plant
- ◆ Silica Sand Quarries
- ▲ Tripoli Plant
- Steam-Powered Elec. Gen. Plants >100 mw
- Coal, Oil & Gas
- ◆ Nuclear
- Water-Powered Electric Generating Plants
- ★ Operating, Conventional
- ★ Operating, Pumped Storage
- ★ Under Construction
- Counties with Limestone, Dolomite, and Felsite Quarries (1981)
- Counties with Sand and Gravel Operations (1980)



0 20 40 60 80 MILES
0 20 40 60 80 KILOMETERS

MINERAL AND ENERGY RESOURCES IN MISSOURI

MISSOURI DEPARTMENT OF NATURAL RESOURCES
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LEGEND

MINERAL RESOURCES

METALS

- Iron
 - Magnetite
 - Sedimentary (limonite & hematite)
- Lead & Zinc
 - Lead with Zinc, Copper, and Silver
 - Zinc with Lead
- Miscellaneous Deposits
 - × Copper
 - ⊠ Copper Cobalt Nickel
 - ▲ Copper-Iron
 - ⦶ Manganese
 - △ Tungsten

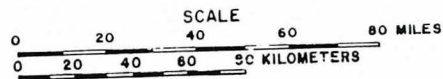
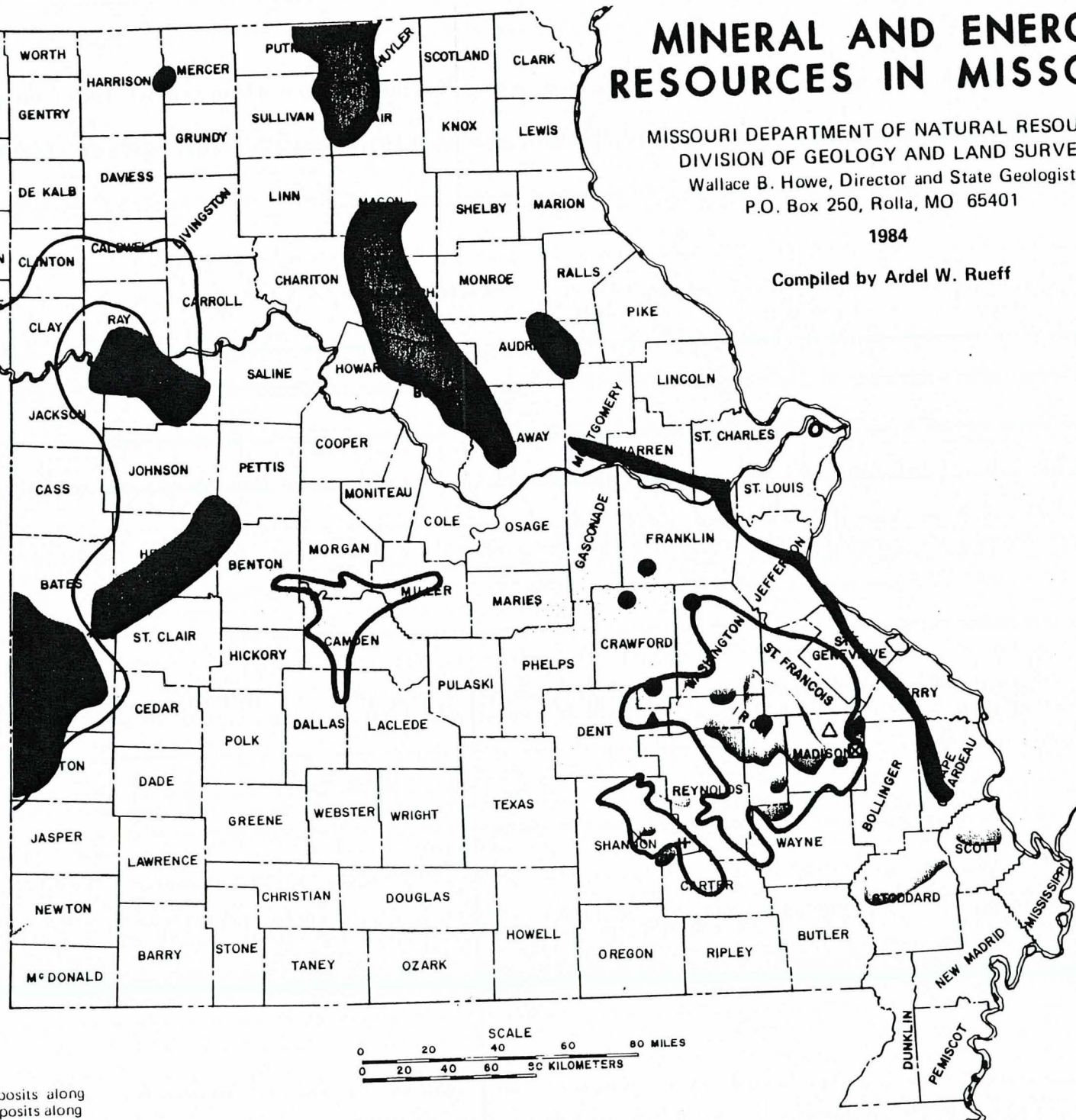
NONMETALS

- Barite – Major District
- Barite with Lead – Minor District
- Clay
 - Clay & Shale
 - Absorbent Clay
 - Refractory Clay
- Silica Sand
- Sand & Gravel*
- Stone
 - Thin Limestones
 - High-Calcium Limestone
 - High-Magnesium Dolomite
 - Granite & Felsite
 - Tripoli

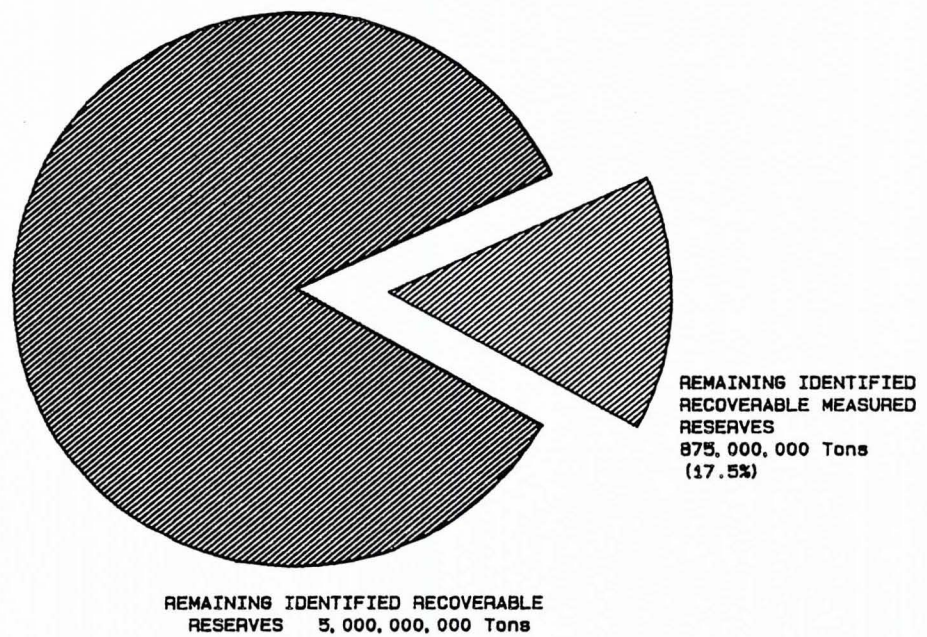
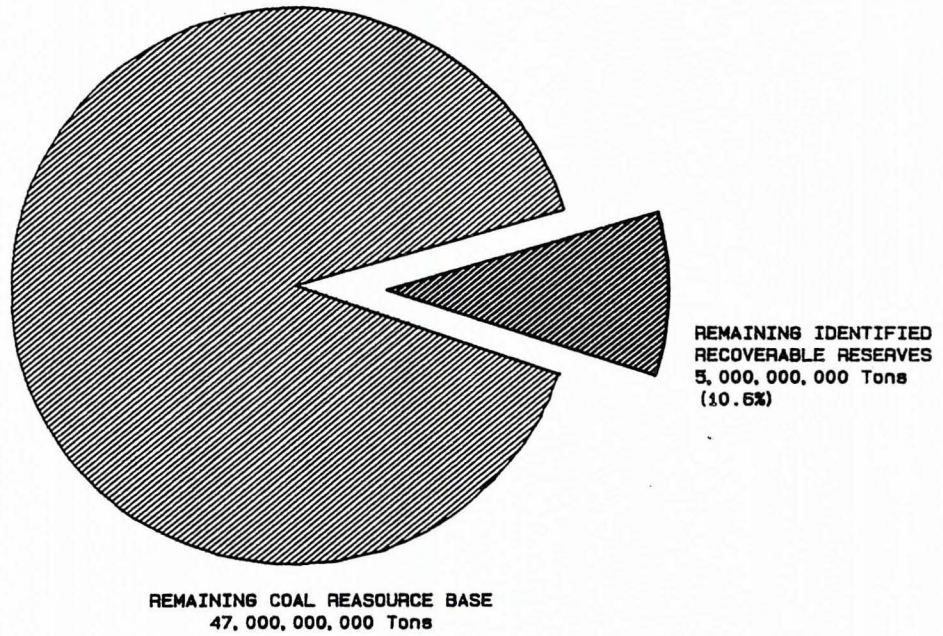
ENERGY RESOURCES

- Area underlain by coal bearing strata
- Major Coal Districts and Areas of Mining
- Areas of Oil & Gas Fields and Heavy Oil Deposits

*Sand and gravel present as alluvial deposits along major stream channels and upland deposits along Crowley's Ridge are not shown.

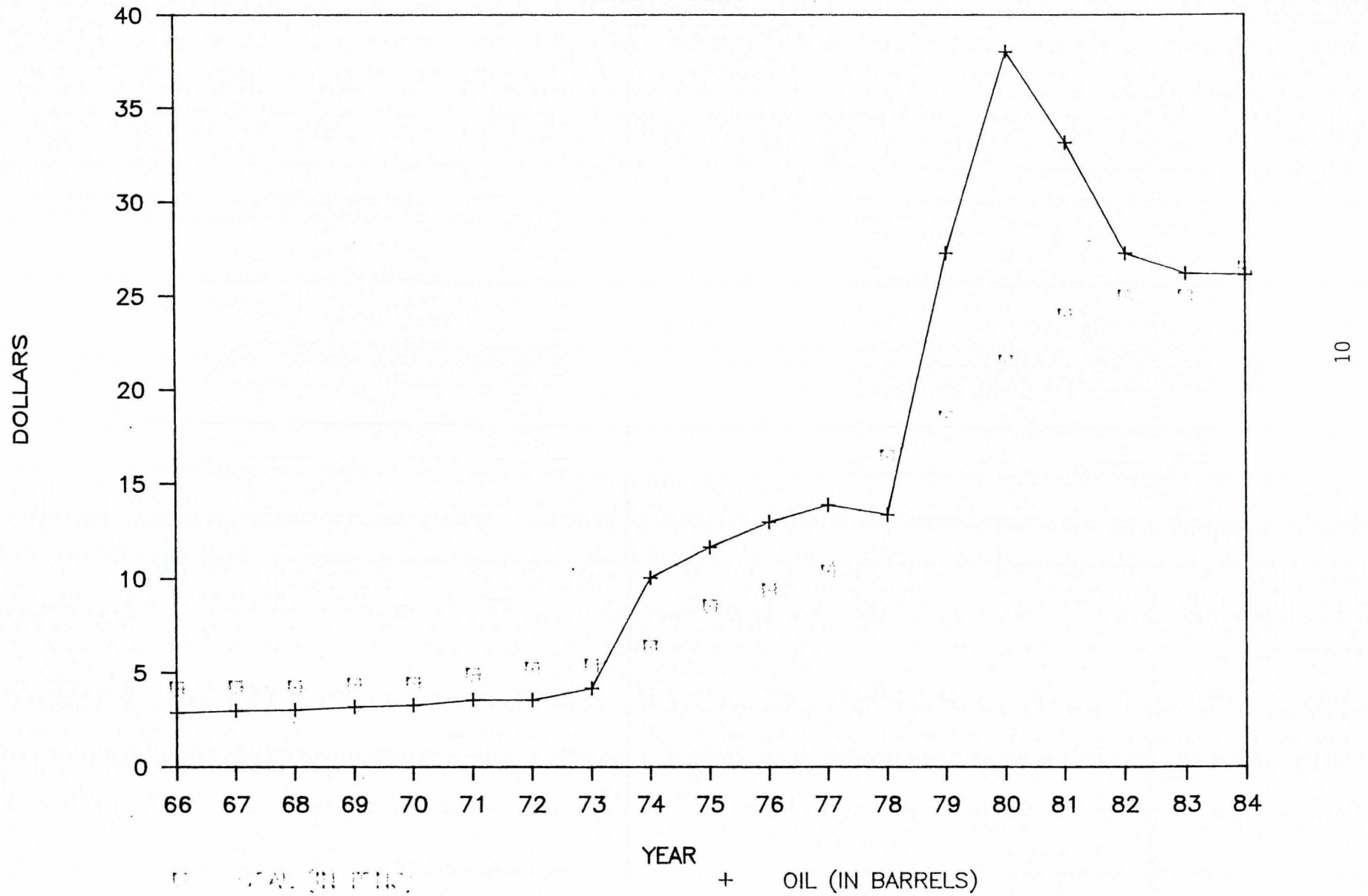


MISSOURI'S COAL RESOURCES AND RESERVES



COST OF COAL Vs. COST OF OIL

1966 - 1984



SOURCES

Coal resource and reserve data from Missouri Department of Natural Resources Geological Survey, in cooperation with the National Coal Resources Data System. Computer applications by Geological Survey staff.

Coal production data from U. S. Department of Energy, and from personal communications with industry representatives.

Hearing testimony presented by Jerry D. Vineyard, Program Director, Geological Survey.

Staff contributions by Joy Bostic, Geologist, Coal Resources; Kurt Hildebrandt and Bruce Netzler, professional staff, Economic Geology.

Missouri Department of Natural Resources
Division of Geology and Land Survey
Geological Survey Program
(314)364-1752

MISSOURI COAL

MISSOURI DEPARTMENT OF NATURAL RESOURCES



INTRODUCTION

Coal, sometimes nicknamed "the rock that burns," is a product of nature's continual growth and decay.

Although not a true coal, peat is considered to be its first stage of development. Further stages of development are the soft coals lignite, or brown coal; subbituminous coal; bituminous coal; and finally, anthracite, or hard coal.

The coal we use now is as much as 300 million years old, formed in an era when lush vegetation and steamy, tropical conditions existed over much of the world. As plants and animals died, the biomass accumulated in layers, eventually forming beds of peat.

Through the centuries, prehistoric seas alternately advanced and receded, depositing layers of sediment on the peat. The sediment accumulated and the earth's crust shifted, compressing the peat, squeezing out its moisture, and burying it deeper and deeper.

Heat generated by the tremendous pressure on the buried beds drove out most of the oxygen and hydrogen, leaving a residue of impure carbon — coal.

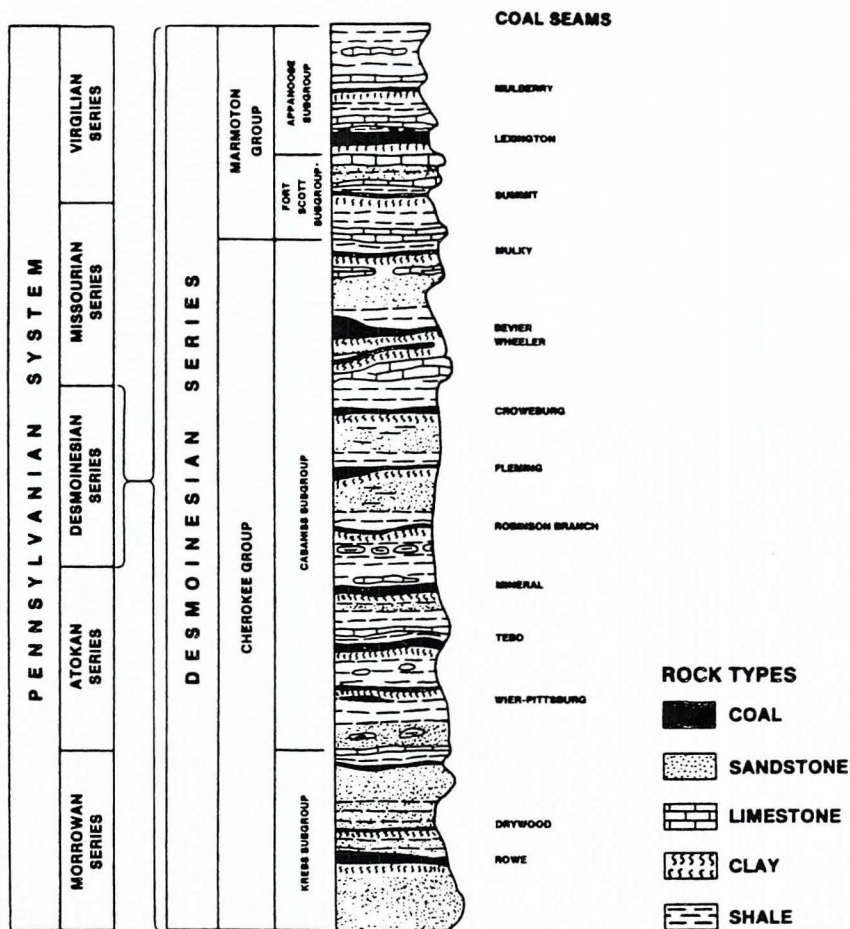
Peat continues to form in places like the Dismal Swamp in North Carolina and Virginia. However, it takes 36 feet of peat to form three feet of bituminous coal, in a process much slower than the rate at which we use it.

COAL QUALITY

The description of coal includes its stage of development and its quality. Quality refers to the desirability of coal for use as a fuel or for producing other commodities.

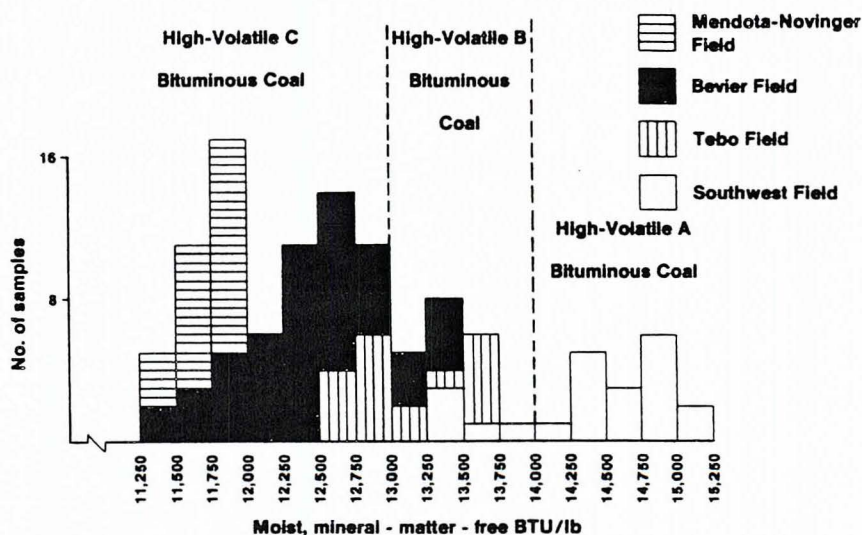
Coal quality includes such factors as ash content, sulfur content, and heat value. In fact, the principal value of coal is in the amount of heat it can generate, a factor directly related to stage of development. Heat value is measured in British Thermal Units, or BTUs. One BTU is the energy necessary to raise the temperature of one pound (one pint) of water one degree Fahrenheit.

The stage of development, or rank, of coal is partly determined by the heat value of moist, mineral-matter-free coal samples. Heat values of Missouri coal



PRINCIPAL COAL SEAMS OF MISSOURI AND THEIR ASSOCIATED ROCK STRATA

The coal seams are shown in an idealized column in order of age, from the oldest at the bottom to the youngest at the top.



**DISTRIBUTION OF MOIST, MINERAL-MATTER-FREE BTU/LB
IN COAL SAMPLES FROM THE MENDOTA-NOVINGER, BEVIER,
TEBO, AND SOUTHWEST FIELDS, MISSOURI**

range from 11,250 BTUs per pound to 15,250 BTUs per pound. Missouri coal is classified by rank as high-volatile A, B, and C bituminous.

All but a small fraction of Missouri coal has a high sulfur content. More than one-half of the state's coal reserves contain 4 percent to 5 percent sulfur; one-fourth contains 3 percent to 4 percent; a small fraction contains less than 3 percent; and the remainder contains more than 5 percent sulfur.

The heat value of Missouri coal on an as-received basis ranges from just over 10,000 BTUs per pound to 12,500 BTUs per pound, with an average of 11,016 BTUs per pound. The moisture content averages 11.1 percent; the ash content, 11.5 percent. These qualities make Missouri coal a good fuel for heating boilers in steam electric-generating plants.

COAL IN MISSOURI

Coal-bearing strata underlie an estimated 24,000 square miles of northern and western Missouri, about 35 percent of the state's surface area. It occurs in seams or beds over large areas called coal fields. Coal seams currently mined are 12 to 42 inches thick. They are named for geographic features at or near where they typically occur. For example, the Drywood seam is named for Drywood Creek in Barton County, where the seam is exposed along its banks. Broader classifications of seams are based on world-wide standards derived from such factors as how readily identifiable the seams are and how long ago they were deposited. Fields usually are named for a principal coal seam mined in the area or for a nearby mining town. The Bevier field, for example, was named for a town of the same name in Macon County.

The Bevier field currently is the most productive in Missouri. It underlies several counties, but about 60 percent of the state's total annual production is mined in Howard and Randolph counties. The Bevier-Wheeler is the principal seam mined; the Summit, Mulky and Croweburg seams are lesser producers. At present, the second-largest producing coal field in the state is the Southwest field, which yields 24 percent of the state's annual coal production. Seams currently mined are the Mulberry in Bates County; the Mineral and Croweburg seams in Vernon

County; and the Rowe and Drywood seams in Barton County.

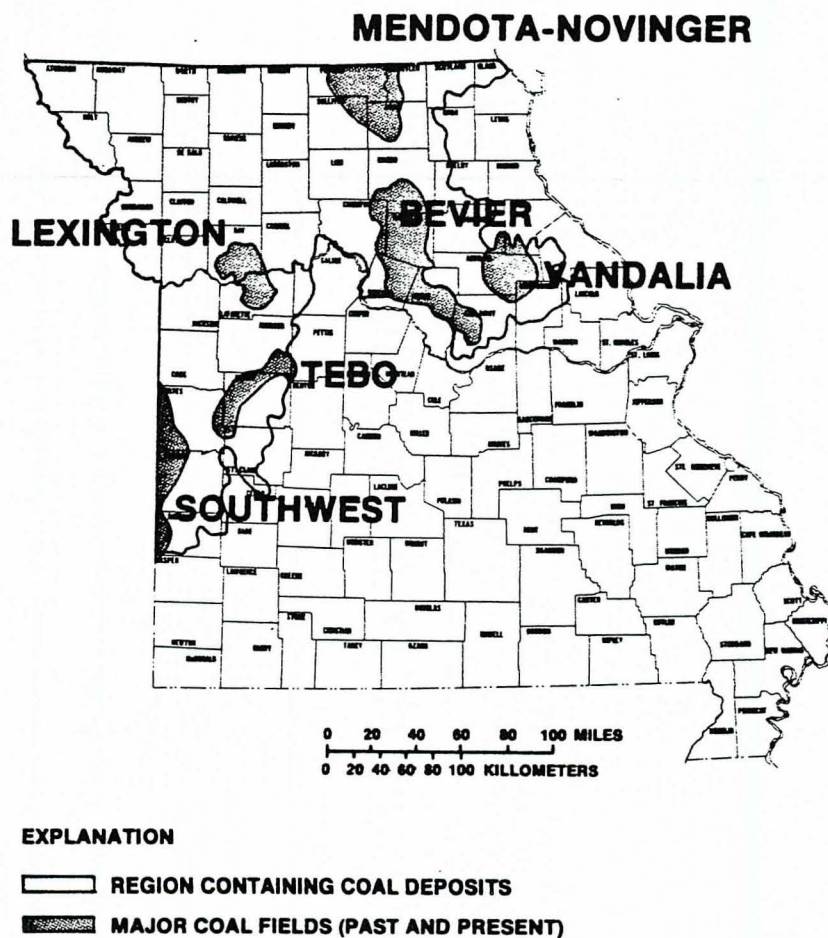
The Tebo field was the largest producing area in the state before mining activity increased in the Bevier field in the late 1970s. Current production from the Tebo field constitutes 10 percent of the state's annual coal production. Most of the coal produced in the region is mined from the Tebo seam. Small amounts are recovered from the Weir-Pittsburg seam.

The Mendota-Novinger and Vandalia coal fields yield less than 3 percent of the state's annual coal production. The Lexington and Mulky seams are the only seams currently being mined in those two fields.

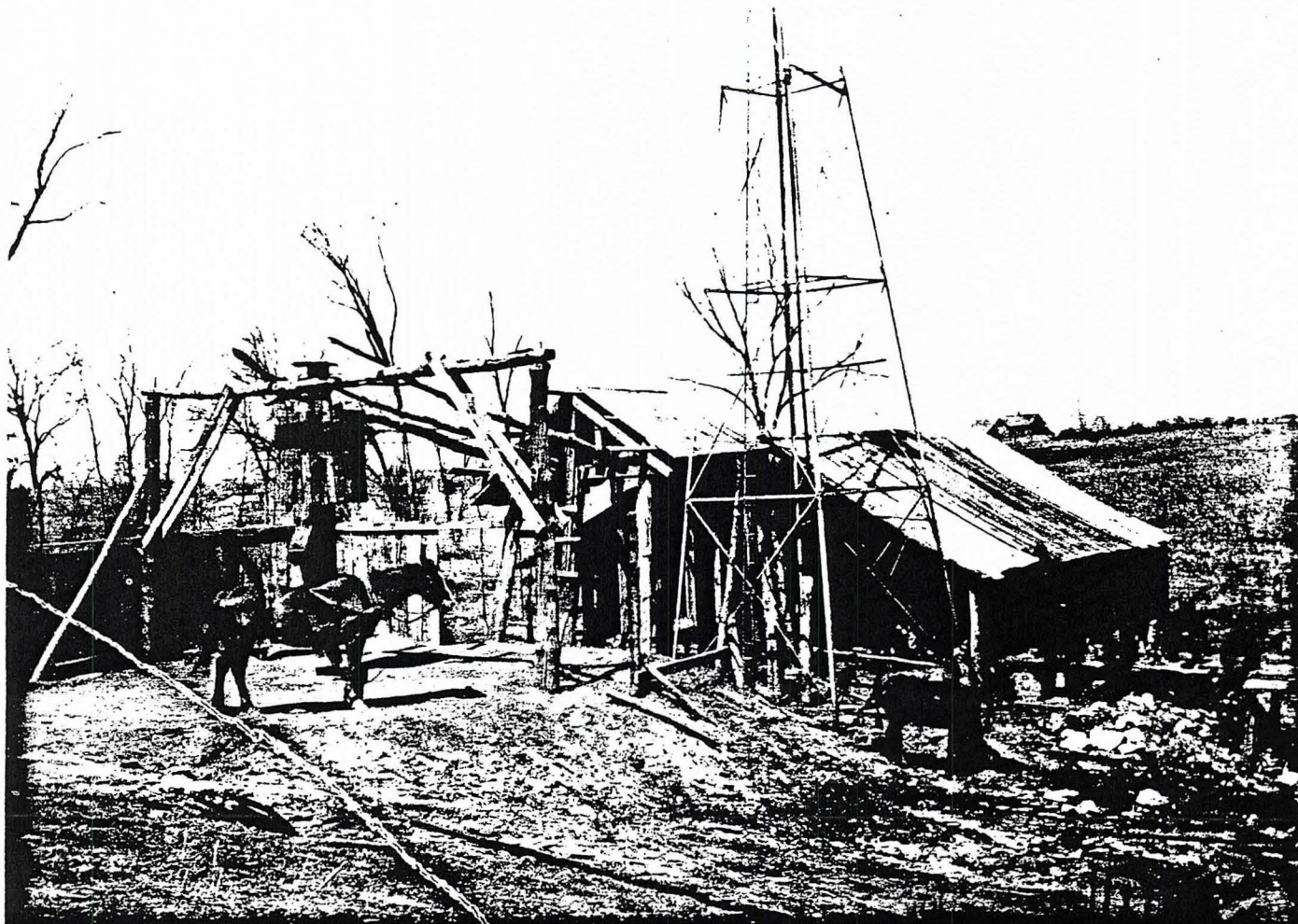
The Lexington coal field is inactive at present, although it was an important producer in the past. The Lexington was the only seam mined, and recovery was primarily by underground methods.

COAL MINING IN MISSOURI

Missouri was the first state west of the Mississippi River to produce coal commercially. In 1806, Captain Zebulon Pike observed coal in bluffs along the Osage River, south of the present site of Prairie City in Bates County. "Black diamond" was mined from such outcrops by digging



PRINCIPAL COAL FIELDS OF MISSOURI



James Brothers Mine at Bevier, Missouri (circa 1911). The horse hoisted coal and supplies up the mine shaft, which is covered by the sheds. The mine car in the right foreground was used underground to haul coal from the working face to the main shaft.

drift mines as far into the hillside as good ventilation would allow, usually only a few hundred feet. Despite difficulties, coal mining had become a thriving enterprise by 1880.

Most early coal mines in Missouri were underground. Interest in strip mining developed in the mid-1930s, and by the late 1960s, it was the only method used. It is a simpler process and is cheaper in lives and dollars.

In early strip mining, horse-drawn scrapers moved the soil and shale, or overburden, covering the coal, beyond the outcropping. Only a few tons of coal could be mined, because the coal seams extended under thicker and thicker overburden that eventually was impossible to remove.

Today, mines use enormous electric shovels and draglines that can remove more than 100 feet of overburden. After topsoil removal, overburden is taken up in strips that may be more than a mile long, and the coal is mined by scrapers

and dozers. The overburden is then removed from a second parallel strip and dumped into the first mined area. The process is continued as the machine moves slowly across the terrain, alternately removing overburden and mining coal. At the same time, reclamation begins on land already mined.

Missouri ranks 19th among the 27 states that produce bituminous coal. Currently, 14 surface mines in the state produce coal. In 1984, they produced almost seven million tons of it — a new state record and a dramatic increase from the mere 9,972 tons of coal mined in 1840.

ECONOMICS OF MINING COAL

The 6,810,336 tons of coal mined in 1984 was valued at more than \$170 million. That was an average price of \$25 per ton received at the mine, a price that

had changed little from the previous three years.

In 1984, Missouri's coal industry employed 1,217 miners, who earned about \$35 million. These salaries generated additional revenue of more than \$64 million in business, industry, and taxes. For every two miners employed, another job was created in support services.

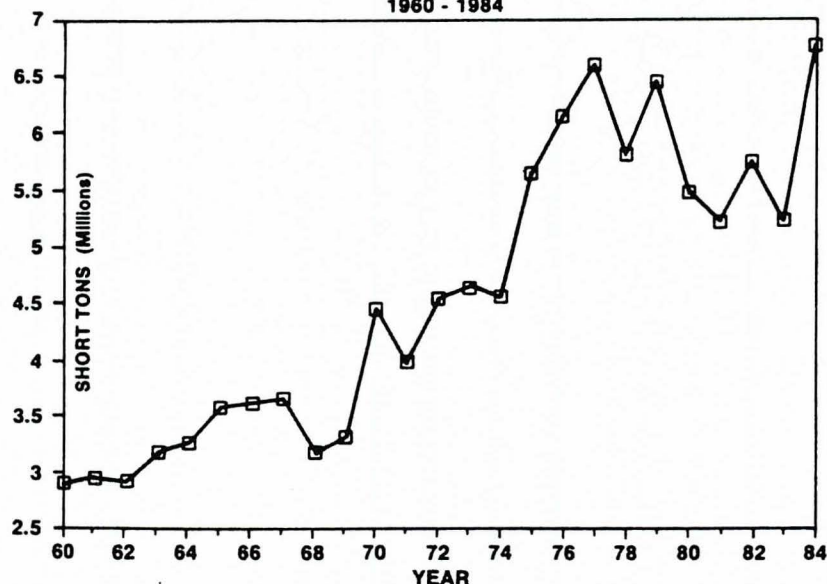
The coal industry is subject to the same laws of supply and demand as are other industries. For example, when cheap natural gas and petroleum began flooding the market in the mid-1940s, demand for coal as locomotive and heating fuel declined until production reached a low of 2.5 million tons in 1958.

Energy-tax credits for coal users and the oil price hikes of 1979-80 also encouraged increased interest in coal, as did the realization that dependence on foreign oil supplies provides a shaky foundation for the American economy.

At present, coal is significantly cheaper than crude oil and natural gas. In 1983,

MISSOURI COAL PRODUCTION

1960 - 1984



for example, \$1.17 bought one million BTUs of coal, but we paid \$4.51 for crude oil and \$2.32 for natural gas having an equivalent heat value.

The cost of mining coal is about 30 percent of the total cost of using it. Prospecting, acquiring coal-bearing land, mining and processing equipment, mine development, and production are all factors that determine the initial price.

The ultimate cost of coal to users involves many other factors. Land reclamation expenses, for example, also must be considered; they depend on such factors as the thickness of the coal seam mined and the quality of the land disturbed.

Because transportation expenses add as much as 25 percent to the price of coal in Missouri, power plants located at the mine (mine-mouth plants) are significantly more economical to operate. In 1970, for example, the price of coal at the three mine-mouth plants in Missouri averaged \$4.07 per ton, \$1.27 less per ton than the average price statewide.

Cost of coal-burning equipment and of power-plant operation and maintenance, including pollution control and waste disposal, also affect the cost of coal to users, as does the quality of coal — high sulfur content, for example, means extra expenses for emissions-control equipment.

All these factors must be weighed in deciding the coal source to use. Missouri's coal must compete with coal from other areas. For example, power plants in the St. Louis metropolitan area use Illinois coal because the Missouri coal fields are farther away, in the northern and western parts of the state.

HOW MISSOURI COAL IS USED

During the 1800s, coal was used to fuel steam locomotives. It also heated homes and commercial buildings, gradually replacing wood as the primary heat source.

In the 1940s, petroleum and natural gas usurped coal as a fuel, but with construction of electric-generating utility plants in the 1950s came the increased need for coal to fire them. That need encouraged development of strip mining as a quick method of coal recovery.

Almost all Missouri coal is used by electric utilities in Missouri, Kansas, and Iowa. A small amount, about 3 percent, is used for manufacturing and for direct space heating.

In 1983, the coal that Missouri produced and used accounted for about 40 percent of the state's fuel needs. Missouri's reliance on coal was almost 18 percent higher than the national average.

Natural gas supplied 19.3 percent of Missouri's energy, petroleum 41.2 percent, and hydroelectric power 1.2 percent.

Almost half the coal produced in the state is used by four electric utilities at mine-mouth sites: Thomas Hill Power Plant near Moberly, Asbury Power Plant north of Joplin, Montrose Power Plant near Clinton, and LaCygne Power Plant at LaCygne, Kan.

EFFECTS OF MINING AND USING COAL

Missouri's coal mining industry contributes substantially to the state's economy, particularly to that of the mining areas. In fact, many such areas are economically dependent on mining.

Reclamation of previously mined lands can improve recreation potential by creating lakes or improving wildlife habitats. It also can increase farming potential by recontouring the land, making it more accessible to farming equipment, or less subject to erosion caused by improper farming methods on steep, hilly land.

Uncontrolled mining damages the environment, and uncontrolled burning of coal produces serious side effects, notably air pollution from sulfur dioxide, nitrous oxide, and other contaminants. In the past, such side effects were taken for granted as the price of using coal.

During the 1960s, however, the nation became aware of the deterioration of our environment, resulting from misuse of our resources, including coal. Several remedial federal and state laws were enacted.

The federal Clean Air Act of 1965 and its amendments in 1970 and 1977 established the foundation for our air pollution control program. Federal and state regulations now limit the amount of sulfur and other pollutants that may be emitted during coal burning.

The 1965 Water Quality Act and the 1972 Water Pollution Control Act provided a means to restore the nation's lakes and rivers to good condition, and to protect them from further dumping or leaching of wastes.

Missouri has always had good water, but in 1973 the state enacted the Missouri Clean Water Law "to conserve the waters

of the state and to protect, maintain, and improve the quality thereof."

The Missouri Land Reclamation Law of 1972 and amendments of 1978 require surface-mining companies in the state to return land disturbed by their activities to pre-mining stability. They must post a performance bond pledging to return the land to productive use.

The laws limit the amount of sediment and other substances allowed in drainage from mined lands. They also establish procedures for monitoring the quality of all water, including runoff, that mining may affect. Mining companies also must remove and save topsoil so that it can be replaced during reclamation, before new vegetation is planted.

About 67,000 acres in the state were mined before 1971 and are therefore unaffected by these regulations.

Much of the land has recovered through natural processes to become valuable fish and wildlife habitat. About 14,000 barren acres, however, continue

to cause environmental problems; such areas left unmended leach acids into nearby streams, polluting the water and killing aquatic wildlife. The terrain of these abandoned mines is often ugly and unusable.

The federal Surface Mining Control and Reclamation Act, enacted in 1977, provides not only nationwide regulation of companies currently mining coal but also a means of restoring the productivity of abandoned, unrestored areas. This legislation requires mining companies to pay 35 cents per ton on all surface-mined coal, a fee that is used to fund reclamation of abandoned mined areas.

FUTURE OF COAL IN MISSOURI

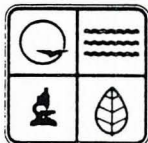
Missouri has sufficient proven coal reserves to support a potential annual production of 28 million tons for 30 years.

To realize this level of production, it would be necessary to secure new markets for Missouri coal and to expand existing markets.

Technologies being developed to reduce the sulfur content of coal hold promise for increased use of Missouri coal. They include advanced chemical cleaning of coal before combustion, and coal gasification, the conversion of coal to low- and medium-BTU gas.

Development of fluidized-bed combustion units for boilers in industry and for small electric power plants also may be a solution. These units remove sulfur during combustion.

Advanced levels of coal production will depend on the ultimate cost of large-scale operation of these new technologies. Meanwhile, current markets for Missouri coal will continue to exist. Demand for Missouri coal is influenced most strongly by the demand for electricity in Missouri, Kansas, and Iowa a demand that is slowly but steadily increasing.



MISSOURI DEPARTMENT OF NATURAL RESOURCES
Division of Geology and Land Survey
P.O. Box 250
Rolla, MO 65401

MISSOURI COAL COMPANIES

<u>Company</u>	<u>Address/Telephone</u>	<u>Mine</u>	<u>Personnel</u>	<u>County</u>
A. J. Ackerman	P. O. Box 453 Turney, MO 64493			
Associated Electric Coop., Inc.	Route 1, Box 110 Clifton Hill, MO 65244 816-261-4287	Bee Veer Thomas Hill Energy Center	Kim Vories William Johnson	Macon Randolph
Bill's Coal Company	P. O. Box 1389 Pittsburg, KS 66762 316-232-2280/2281	Fort Scott	Ron Pommier	Vernon
Burbridge Coal, Inc.	Route 2, Box 110 Paris, MO 65275 816-327-5396		Jack Simpson	Ralls and Monroe
Central West Coal Corp.	P. O. Box 36 Bronaugh, MO 64728 417-922-3218		Ronald D. Smith President	Vernon
Holiday Coal Co.	c/o Mo. Lsg. & Inv. Box 128 Bunceton, MO 65237	Charity Ann Mine No. 1	Robert Hammond	Howard Howard
Howard County Coal Co.	P. O. Box 330 Fayette, MO 65248 816-248-2237		Fred Alexander	Howard
Kingdom Mining Co. Inc.	1722 S. Glenstone, Ste. EE Springfield, MO 65804 417-881-5442		Walter Dimmitt	
Mid-Missouri Energy Corp.	Route 1 Franklin, MO 65250 816-848-2223	Charity Ann Mine No. 1	Joe Dunleavy Gene Bailey Acorn Systems 13430 Darr Dr. Colorado Springs Colorado 80908	Howard Howard

<u>Company</u>	<u>Address/Telephone</u>	<u>Mine</u>	<u>Personnel</u>	<u>County</u>
Midwest Resources, Inc.	c/o Ideker, Inc. Box 187 Mound City, MO 64470 816-442-3143		Roger Ideker	Chariton
Midwestern Mining & Reclamation	5080 Spectrum, Ste. 1000E Dallas, Texas 75248		Joe Bishop	Vernon
Missouri Leasing & Investment Co. Inc.	Box 128 Bunceton, MO 65237 816-427-5247	Rebecca Jean	Robert Hammond	Cooper
Missouri Mining, Inc.	P. O. Box 207 Unionville, MO 63565 816-355-4311		Richard Wallace	Putnam
Moniteau Valley Mine, Inc.	Route 1 Fayette, MO 65248 816-248-2604		Frank Kite	Howard
NEMO Coal, Inc.	Box 887 Moberly, MO 65270 816-277-4424		Mike Bowlby Bill Upton	Randolph
Peabody Coal Company	Montrose, MO 64770 816-693-4411	Power	Steve King	Henry
		Tebo		Henry
	P. O. Box 14495 St. Louis, MO 63178 314-342-3400	Illinois Div.	John C. Bennett President	
Pittsburg & Midway Coal Mining Co.	P. O. Box 54 Asbury, MO 64832 417-238-8880	Empire	Bernard Rottman	Barton
	P. O. Box 8 Amsterdam, MO 64723 913-757-4408	Midway	Clarence Washburn Bates Paul Leidich	

<u>Company</u>	<u>Address/Telephone</u>	<u>Mine</u>	<u>Personnel</u>	<u>County</u>
P & M (Cont'd)	1720 S. Bellaire St. Denver, Colorado 80222 303-759-6500	Headqtrs.	Carl Sainato John Hinton	
Reaves Coal Company	Route 3 Lamar, MO 64759 417-398-2698		Jim Reaves	Vernon
SunPyre Mining Inc.	P. O. Box 97 Mindenmines, MO 64769 316-231-7195		Ken Cassidy	
Sunrise Coal Co.	R. R. 4 Butler, MO 64730 816-832-4470		Gerald Dirks	
Universal Coal & Energy Co.	P. O. Box 128 Harrisburg, MO 65256 816-248-3317		Mike Sinicropi President Mike Larsen	Howard Randolph
Vernon County Crushed Stone	Route 1, Box 36B Deerfield, MO 64741 417-927-3322		John H. Morris	Vernon
Weyer, Glen	Route 2, Box 132 Ainsworth, Nebr. 69210 402-387-2795		Glen Weyer	
Wyoming Fuel Company	Route 1 Perry, MO 63462 314-565-2237	Tri-County	Mohan Pundari	Ralls Monroe
	12055 W 2nd Pl. P. O. Box 15596 Lakewood, Colo. 80215 303-989-5037		Dave Stout	

Appendix E
COAL USERS LIST

Anheuser Busch
721 Pestalozzi Street
St. Louis , MO 63118

Associated Electric Coop.
St. Jude Road
P.O. Box 159
New Madrid , MO 63869

Central Electric Power Coop.
Chamois Power Plant
State Route 100
Chamois , MO 65024

Chrysler Corporation
1001 N. Highway Drive
Fenton , MO 63026

City Utilities of Springfield
Southwest Power Station
Walnut Lawn at Haseltine
Springfield , MO 65807

Continental Cement Company
Hwy. 79 South
P.O. Box 71
Hannibal , MO 63401

Farmington St. Hospital
Farmington , MO 63640

GMC Bus and Truck Division
3809 N. Union
St. Louis , MO 63115

Independence Power & Light
Missouri City Station
P.O. Box 366
Missouri City , MO 64072

K.C. Power & Light Co.
Grand Avenue Station
115 Grand Avenue
Kansas City , MO 64106

Kansas City Power & Light
Iatan Generating Station
P.O. Box 284
Weston , MO 64098

Mallinckrodt Chemical
3600 N. Second
St. Louis , MO 63147

Ash Grove Cement Company
Route 3
Box 323
Springfield , MO 65804

California Mfg. Company
St. James Division
320 East Hardy Street
St. James , MO 65559

Chillicothe Municipal Utilities
P.O. Box 807
715 Washington St.
Chillicothe , MO 64601

City Utilities of Springfield
James River Plant
P.O. Box 551
Springfield , MO 65807

Columbia Municipal Power Plant
1501 Business 70 Loop
P.O. Box N
Columbia , MO 65201

Empire District Electric Co.
Asbury Plant
Route 1, Box 53
Asbury , MO 64832

Fulton Dept. Utilities
Fulton , MO 65251

General Mills, Inc.
2917 Guinotte
Kansas City , MO 64120

Independence Power & Light
21500 E. Truman Road
Independence , MO 64056

K.C. Power & Light Co.
Montrose Generating Station
Route 4
Clinton , MO 64735

Kansas City Power & Light Co.
Hawthorn Station
8700 Hawthorn Road
Kansas City , MO 64120

Marshall Municipal Utilities
765 W. North Street
Marshall , MO 65340

COAL USERS LIST

Mississippi Lime Company
Hwy. 61
Ste. Genevieve , MO 63670

Missouri Minerals Processing
High Hill , MO 63350

Mo. Power & Light Co.
400 W. Main
Jefferson City , MO 65101

Monsanto Company
1700 S. Second Street
St. Louis , MO 63177

National Refractories
Mexicc Works
Route J, P.O. Box 499
Mexicc , MO 65265

PPG Industries, Inc.
26 Mississippi Avenue
Crystal City , Mo 63019

Resco Products of Mo., Inc.
Old Bonne Terre & Big River
P.O. Box 440
Bonne Terra , MO 63628

Sikeston Light & Power
Sikeston , MO 63801

Southeast Mo. State University
900 Normal
Cape Girardeau , MO 63701

St. Joseph Light & Power Co.
Lake Road Plant
Lower Lake Road
St. Joseph , MO 64501

Thomas Hill Power Plant
Road F, Randolph County
Rt. 1, P.O. Box 87
Clifton Hill , MO 65244

Union Electric
Labadie Plant
P.O. Box 149
St. Louis , MO 63166

Missouri Chemical Works
Hwy. 79, County Road D
Division of Hercules Inc.
Louisiana , MO 63353

Missouri Portland Cement Co.
Kansas City Plant
Wayne City Road
Sugar Creek , MO 64050

Mo. Public Service Company
Sibley Plant
E. Walnut Street
Sibley , MO 64088

N.E. Missouri Electric Coop.
P.O. Box 191
Palmyra , MO 63461

Northwest Mo. State University
Maryville , MO 64468

Pittsburg and Midway Mining Co.
107 W. Eleventh St.
Pittsburg , KA 66762

River Cement Co., Selma Plant
4 Mi S of Festus, Off North
Outer Roadway, Route I-55
Festus , MO 63028

Sikeston Light & Water Station
Unit 1, 1400 W. Compress Rd.
P.O. Box 370
Sikeston , MO 63801

St. Joe Lead Co. Smelting Div.
Main Street
P.O. Box 158
Herculaneum , MO 63048

St. Louis State Hospital
5400 Arsenal Street
St. Louis , MO 63139

Tretolite Division of
Petrolite Corporation
369 Marshall
St. Louis , MO 63119

Union Electric Company
Sioux Generating Station
P.O. Box 98
West Alton , MO 63386

COAL USERS LIST

Univ. of Mo. Power Plant
415 5th Street
Energy Mgt. Office
Columbia , MO 65211

University of Mo. at Rolla
University Power Plant
1300 Block of State St.
Rolla , MO 65401

Washington University
Campus Box 1036
St. Louis , MO 63130

Washington University
Euclid Power Plant
500 S. Euclid
St. Louis , MO 63110

Appendix F

BEFORE THE MISSOURI AIR CONSERVATION COMMISSION

RESOLUTION

WHEREAS, CONCERNS HAVE BEEN EXPRESSED BY SOME THAT THE ACIDIFICATION OF RAIN MAY BE RESPONSIBLE FOR DAMAGE TO FORESTS, LAKES, BUILDINGS, AND POSSIBLY HUMAN HEALTH IN SOME PARTS OF THE UNITED STATES; AND

WHEREAS, COAL BURNING UTILITIES ARE A MAJOR SOURCE OF SULFUR DIOXIDE EMISSIONS; AND

WHEREAS, MISSOURI IS A STATE WITH SIGNIFICANT SULFUR DIOXIDE EMISSIONS; AND

WHEREAS, SCIENTIFIC LITERATURE IS CONFLICTING REGARDING THE RELATIONSHIP BETWEEN SULFUR EMISSIONS AND ACID PRECIPITATION; AND

WHEREAS, THE ENVIRONMENTAL IMPACT OF MISSOURI'S SO₂ AND NO_x EMISSIONS HAS NOT BEEN DETERMINED; AND

WHEREAS, SCIENTIFIC EVIDENCE INDICATES THAT MISSOURI'S SO₂ AND NO_x EMISSIONS DO NOT CONTRIBUTE TO THE ACIDITY OF RAINFALL IN THE NORTHEAST; AND

WHEREAS, FLUE GAS DESULFURIZATION (SCRUBBERS) UNITS AND FUEL SWITCHING ARE PRESENTLY THE ONLY TWO OPTIONS AVAILABLE FOR ACHIEVING LARGE SCALE REDUCTIONS; AND

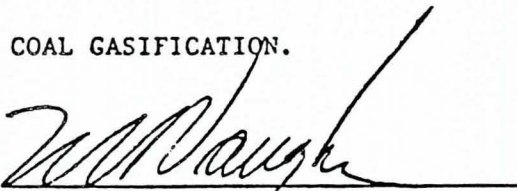
WHEREAS, FUEL SWITCHING COULD CREATE THE DISPLACEMENT OF LARGE NUMBERS OF COAL MINERS AND OTHER RELATED JOBS; AND


WHEREAS, THE INSTALLATION AND OPERATION OF SCRUBBERS IN MISSOURI WOULD COST ABOUT 4 BILLION DOLLARS OVER A TEN (10) YEAR PERIOD, PRODUCE ENORMOUS AMOUNTS OF POTENTIALLY TOXIC SLUDGE, AND INCREASE THE COST OF ELECTRICITY TO MISSOURI CONSUMERS BY ABOUT 20 PERCENT.

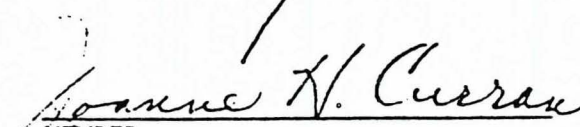
WHEREAS, PRECOMBUSTION REMOVAL OF SULFUR FROM COAL CAN ACHIEVE AN IMMEDIATE 2-3 MILLION TON PER YEAR REDUCTION OF SULFUR DIOXIDE NATIONWIDE; AND

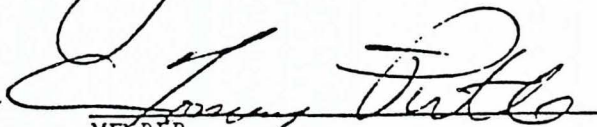
WHEREAS, EXPERIMENTAL RESEARCH ON EMERGING TECHNOLOGIES FOR REMOVAL OF SULFUR DIOXIDE, SUCH AS FLUIDIZED-BED COMBUSTION, LIMESTONE INJECTION AND COAL GASIFICATION, MAY PROVE THOSE SYSTEMS TO BE ECONOMICALLY SOUND AND MORE ENVIRONMENTALLY ACCEPTABLE, FACILITATING THE RETIREMENT OF OLDER INEFFICIENT UTILITY PLANTS, AND IN ADDITION, REDUCE NO_x EMISSIONS AS WELL AS SO₂ EMISSIONS.

RESOLVED, THAT THE MISSOURI AIR CONSERVATION COMMISSION SUPPORTS THE REDUCTION OF SULFUR DIOXIDE EMISSIONS BY PRECOMBUSTION REMOVAL OF SULFUR FROM COAL, WHERE FEASIBLE, AND THE FUNDING OF RESEARCH TO FIND IMPROVED AND LESS EXPENSIVE WAYS TO ADVANCE COAL CLEANING AND OTHER ECONOMICALLY SOUND AND ENVIRONMENTALLY ACCEPTABLE SO₂ AND NO_x CONTROL TECHNOLOGIES, SUCH AS FLUIDIZED-BED COMBUSTION, LIMESTONE INJECTION, AND COAL GASIFICATION.


CHAIRMAN



MEMBER


MEMBER


MEMBER


MEMBER


MEMBER


MEMBER

ADOPTED THIS 26TH DAY OF JULY, 1984

Appendix G

Mining Industry Council of Missouri



Tel: (314) 635-7308 • Box 725 • 225 E. Capitol • Jefferson City, Mo. 65102

October 1, 1986

Honorable Don McQuitty
Missouri State Capitol
Jefferson City, Missouri

Dear Don:

I regret that I will be unable to appear at the sub-committee meeting this Thursday, but for the record I would like to propose the following initiatives for possible legislation:

1. Require that the state regulations be no more stringent than the comparable federal regulations in programs where the state has, or can have, administrative primacy. The Land Reclamation program and the Hazardous and Solid Waste programs particularly need this amendment.
2. Tax incentives for the use of Missouri coal.
3. Support, in the appropriation process, for proposals to replace obsolete or obsolescent boilers in state institutions with fluidized bed boilers or similar advanced technology.

It is certainly to be hoped that a number of other initiatives will be brought forward at the hearing.

Again, I regret that I cannot be with you.

Sincerely,

W. E. Marbaker II
Executive Secretary

rms



associated electric cooperative, inc.

2814 S. Golden, P.O. Box 754
Springfield, Missouri 65801-0754
417-881-1204

September 25, 1986

The Honorable Donald R. McQuitty
House of Representatives
12th District
State Capitol Building
Jefferson City, MO 65101

Dear Mr. McQuitty:

Subsequent to the hearings your subcommittee held last week, we would like to provide some additional comments on four subjects discussed at that time.

1. State Regulations Should be No More Stringent than Federal Regulations

This is a subject of significant concern to Missouri coal mining companies. We want to reiterate our position that making state mining regulations more stringent than federal requirements will have a negative effect on developing Missouri coal reserves. In this regard, we encourage your committee to propose legislation that would preclude this from occurring in our state program.

2. Tax Incentives

Due to the nature of our Cooperative structure, there is little that can be done through tax incentives to further encourage our use of Missouri coal. Should you decide to pursue developing this type of legislation, we will be glad to provide technical input to your committee if it would be helpful.

There is, however, one area you might want to consider. Mining equipment for a new or expanded mining operation is exempt from state sales tax. The Department of Revenue, though, does not consider reclamation equipment to be part of the direct mining operation and does not allow this sales tax exemption for reclamation equipment. Establishing through legislation that reclamation equipment is eligible for this sales tax exemption would be helpful.

3. Fluidized Bed Combustion

From comments made at the hearing, I was left with the opinion that some people believe commercializing fluidized bed combustion (FBC) will solve the problems related to both Missouri coal development and possible acid rain reduction requirements. It is likely that neither of these contentions is correct.

There is little question that FBC will make it much easier to burn Missouri coal in an environmentally acceptable manner. However, Missouri coal will not be used, even in fluidized bed units, unless it is cost competitive with other alternatives. I believe Missouri coal is unlikely to be competitive under current market conditions.

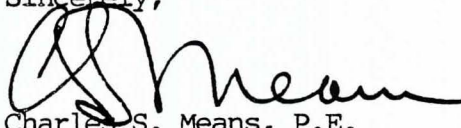
It is also unlikely that FBC will be a major factor if large SO₂ reductions are required under possible acid rain control legislation. To our knowledge, it is only feasible to convert conventional boilers of up to about 150 MW to fluidized bed. Units of this size will account for only a very small fraction of the SO₂ reduction required in Missouri.

4. Acid Rain

Although we do not agree that acid rain has been proven to be a new and serious problem in the northeast United States, we do agree that delaying action on acid rain until the scientific analyses are complete is prudent policy. In this regard, we too encourage you to take this position both individually and, if possible, through the Missouri legislature. Such a position would send a clear message to Missouri's congressional delegation of the importance of this issue.

Thank you very much for the opportunity to appear before your subcommittee on developing Missouri's coal resources. I hope our testimony and these additional comments are helpful in your deliberations.

Sincerely,

A handwritten signature in black ink, appearing to read "C. S. Means", written over a horizontal line.

Charles S. Means, P.E.
Supervisor, Environmental Engineering

jc

cc: Subcommittee Members
Nick DePasquale



Appendix I

CITY OF COLUMBIA, MISSOURI
WATER AND LIGHT DEPARTMENT
RICHARD E. MALON, DIRECTOR

P. O. BOX N COLUMBIA, MO. 65205
TELEPHONE (314) 874-7325

September 25, 1986

SEP 27 1986

Mr. Don McQuitty
State Representative
12 District
State Capitol
Jefferson City, MO 65101

Dear Mr. McQuitty:

Re: House Interim Committee on Mining Subcommittee Hearing

Thanks for your letter regarding the upcoming hearings on Coal. I am sure you will receive testimony from several municipalities including Columbia.

Unfortunately, your committee hearing is scheduled to be in direct conflict with the Missouri Association of Municipal Utilities annual meeting which will be in Springfield this year. I have made several commitments for meetings during the conference so I will be unable to attend your hearings. We will have another representative from Columbia at the meeting, however. Since I won't be able to attend your hearing myself, I thought I might pass a few thoughts on in this letter that might provide some insight into the problems we are facing in Columbia.

The Columbia Municipal Power Plant is quite small compared to the plants owned and operated by large utilities such as Union Electric or Associated Electric Co-op. Thomas Hill, for example, has three generating units in the size range of 600 MW, for a total site capacity approaching 1800 MW. The Columbia plant has two coal fired units: one at 16 MW and one at 22 MW, for a total site capacity of 38 MW. And yet the plant is very important to our City both for the jobs it provides and the low cost power that it provides to our system. We just did an extensive overhaul job on it that will extend the life of the plant for another 20-30 years for a cost of \$150/KW compared to the cost for new plant capacity in the range of \$1800/kw. Therefore it is very important to the economy of our community that we keep the plant in operation.

Our plant burns Missouri coal. It was designed that way from the beginning, and we are burning coal today that is mined by Universal Coal and Energy. We would like to continue burning Missouri coal because it is the most economical for us. We really don't need any legislation to require us to use it. The real problem as we see it is that something may happen in the near future that will preclude us from burning Missouri coal.

Missouri coal, as you probably know by now, is relatively dirty. While it has a high heating value (high BTU content), it also has a high ash content and a high sulfur content. Our plant conforms to the State requirements for particulate emission because we have a bag house installed and operating. We

do not do any sulfur removal. When the air pollution laws were developed, the DNR set up a regulation for small existing plants that would allow us to burn Missouri coal provided that we do not emit more than 8 pounds of sulfur per million BTU fired. We meet that requirement, but it is relatively high compared to the requirements for new plants.

What we are concerned about right now is the possible impact of acid rain legislation that congress might pass. They are talking of imposing sulfur emission requirements as low as .8 to 1.2 pounds of sulfur per million BTU fired. This will require us to either purchase out-of-state low sulfur coal, install scrubbers (at a high expense), or both. In fact, we are concerned about getting a double whammy out of it. The proposed Federal legislation would impose taxes on coal burning utilities to pay for the installation of sulfur removal equipment. But it looks like the grants of funds would be to large utilities with large plants in order to reduce the most sulfur emissions for the dollar spent. We in Columbia could very well end up paying the tax, not getting any funds for sulfur removal, but be required by the DNR to install the scrubber equipment anyway.

We are as concerned about acid rain as anybody. I myself happen to be an avid boat owner and fisherman, and don't want to see our lakes and rivers damaged. But I am convinced that the relatively small amount of emissions from our plant will have a negligible impact on the environment. While we have two coal fired units, we rarely run both of them at the same time. We probably run an average of about 12-15 MW of generation at any time over the course of the year. Compared to the amount of capacity in service at one time at the Associated and investor-owned utility sites, our is hardly anything. I believe that the position taken by the American Public Power Association regarding acid rain legislation is a reasonable one: namely, that we should determine what it would cost to install sulfur removal equipment on the large plants in the country, institute a kwhr tax for a finite period that will generate the funds to install the equipment, give it to the companies so the equipment will be put on, and leave everyone else alone. This will give a dramatic reduction in sulfur emissions with a minimum impact on any utility.

It would be my feeling that if the State Legislature wanted to do something to protect and encourage use of Missouri coal, the best course of action would be:

1. Work with our Congressional Delegation to express concern over possible acid rain legislation and influence such legislation so that small plants like ours do not get hit with any "double whammy", and would either be exempt from new sulfur emission requirements or have much less restrictive limits than what are now proposed; and
2. Take whatever State legislative action would be appropriate to insure that small plants such as ours could continue to operate under the present regulations so that we could continue to burn Missouri coal without the requirement that we install expensive sulfur removal equipment.

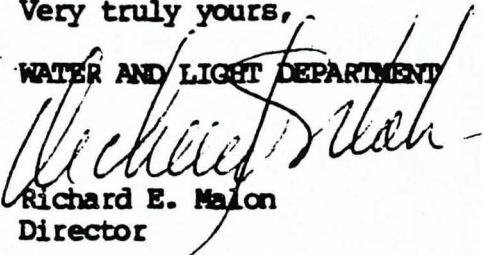
Since Missouri reserves are relatively small, most mining other than the Thomas Hill operation will be done to supply relatively small plants such as

Columbia's. Our emissions are quite small compared to those of large plant sites where the installation of scrubber equipment would be very effective in achieving dramatic reductions in sulfur emissions. I feel, therefore, that our suggestions would help the Missouri mining industry without being detrimental to the environment.

We will be planning to submit similar testimony on October 2, and look forward to discussing our problems with Missouri coal with you further.

Very truly yours,

WATER AND LIGHT DEPARTMENT



Richard E. Maion
Director

REM:ld

cc: City Manager
Water and Light Advisory Board

Appendix J

STATEMENT OF

RUSSELL STILWELL

LEGISLATIVE COORDINATOR

UNITED MINE WORKERS OF AMERICA

ON

PROMOTION AND USE OF MISSOURI COAL

BEFORE THE

SUBCOMMITTEE ON MISSOURI COAL USE
REPRESENTATIVE DON McQUITTY, CHAIRMAN

JEFFERSON CITY, MISSOURI

OCTOBER 2, 1986

MY NAME IS RUSSELL STILWELL AND I AM THE LEGISLATIVE COORDINATOR FOR THE UNITED MINE WORKERS OF AMERICA COVERING THE STATES OF OKLAHOMA, KANSAS, MISSOURI, AND INDIANA. MR. CHAIRMAN, I WOULD LIKE TO THANK THIS SUBCOMMITTEE FOR HOLDING THESE HEARINGS TODAY ON THE FUTURE OF MISSOURI COAL AND WHAT THE STATE CAN DO TO ASSIST THE COAL INDUSTRY AND THE COAL MINERS IN THE STATE OF MISSOURI. I AM ACCOMPANIED TODAY BY ROBERT LONG, INTERNATIONAL EXECUTIVE BOARD MEMBER OF THE UNITED MINE WORKERS IN DISTRICT 14 COVERING THE STATES OF MISSOURI AND KANSAS, DISTRICT 14 OFFICERS, AND ACTIVE RANK AND FILE MEMBERS OF THE UNITED MINE WORKERS OF AMERICA. WE HAD THE OPPORTUNITY TO SET IN ON THESE SUBCOMMITTEE HEARINGS A FEW WEEKS AGO AND WE FELT VERY ENCOURAGED ABOUT THE RESPONSE FROM THIS COMMITTEE AND THE RESPONSE FROM THE VARIOUS ORGANIZATIONS AND STATE AGENCIES WHO TESTIFIED BEFORE THIS COMMITTEE. WE ARE COMMITTED, AS THESE OTHER GROUPS ARE COMMITTED, TO ATTEMPT TO FIND WAYS TO BURN MISSOURI COAL IN AN ECONOMICAL AND ENVIRONMENTAL ACCEPTABLE MANNER. RATHER THAN RECITE THE VARIOUS POINTS OF INFORMATION AND OUTLINE THE VARIOUS COAL PRODUCTION AND RESERVE FACTORS ON MISSOURI COAL, AS PREVIOUSLY OUTLINED IN YOUR EARLIER HEARINGS, WE WOULD LIKE TO ADDRESS OUR COMMENTS TOWARDS THE PROMOTION AND USE OF MISSOURI COAL. SPECIFICALLY, WE WOULD ASK THIS SUBCOMMITTEE TO LOOK INTO THE CONCEPTS OF ADVOCATING VARIOUS LEGISLATIVE MEASURES COMMITTED TO EXPANDING EXISTING MARKETS AND CREATING NEW MARKETS FOR MISSOURI COAL. BUT BEFORE I BEGIN, IF I MAY, I WOULD LIKE TO PROVIDE A LITTLE BRIEF BACKGROUND ABOUT THE MISSOURI COAL INDUSTRY AND THE PURCHASING PRACTICES OF MISSOURI UTILITIES.

AS PREVIOUSLY STATED BY THE MISSOURI DEPARTMENT OF NATURAL RESOURCES MISSOURI HAS MEASURED RECOVERABLE COAL RESERVES TO SUPPORT A POTENTIAL ANNUAL PRODUCTION OF 29 MILLION TONS FOR 30 YEARS. HOWEVER, THE CURRENT ANNUAL PRODUCTION IS ABOUT 5 MILLION TONS, AND DECLINING. COAL CONSUMPTION IN MISSOURI IS CURRENTLY APPROXIMATELY

22 MILLION TONS PER YEAR WHICH IS BEING SUPPLIED PRIMARILY BY COAL SHIPPED IN FROM ILLINOIS, WYOMING, AND OTHER STATES. COAL CONSUMPTION CONTINUES TO INCREASE, WHILE COAL PRODUCTION IN MISSOURI IS ON THE DECLINE.

ACCORDING TO THE ENERGY INFORMATION ADMINISTRATION PUBLICATION, COST AND QUALITY FOR FUELS FOR ELECTRIC UTILITY PLANTS, 1985, THE STATE OF MISSOURI WAS UTILIZING IN EXCESS OF 13 MILLION TONS OF ILLINOIS COAL, 3.5 MILLION TONS OF WYOMING COAL, AND ONLY 3.8 TONS OF MISSOURI COAL IN THEIR TOTAL 22 MILLION TON CONSUMPTION BY ELECTRIC UTILITIES. WHAT IS ALARMING ABOUT THESE FIGURES IS OVER THE LAST FEW YEARS THE INCREASING TREND OF WESTERN IMPORTED COAL INTO THE STATE OF MISSOURI WHEN THE MISSOURI COAL MARKETS ARE ON THE DECLINE. OUR ORGANIZATION WOULD ASK THIS SUBCOMMITTEE TO INVESTIGATE LEGISLATIVE MEASURES DESIGNED TO PROMOTE AND STUDY THE MISSOURI COAL INDUSTRY TO MAKE THIS INDUSTRY COMPETITIVE IN THE STATE OF MISSOURI. SEVERAL QUESTIONS BECOME APPARENT WHEN ONE LOOKS AT THE MISSOURI COAL RESERVE BASE AND THE LACK OF USE OF THAT COAL BASE IN THE STATE OF MISSOURI. WHY ISN'T THE MISSOURI COAL INDUSTRY OR THE UTILITY INDUSTRY DEVELOPING MINES FOR EXPANSION IN THE STATE OF MISSOURI? WHY IS MISSOURI NOT ACTIVELY PROMOTING THE DEVELOPMENT OF THE MINING INDUSTRY? AND LASTLY, WHAT CAN BE ADVOCATED TO REPLACE A RENEWED INTEREST IN MISSOURI COAL DEVELOPMENT?

WHEN LOOKING INTO THE ISSUE OF MISSOURI COAL ONE CAN FIND DISINCENTIVES THAT MAY HINDER THE USE OF MISSOURI COAL PRODUCTION. CONVERSELY, THERE ARE INCENTIVES THAT MISSOURI MAY WISH TO LEGISLATE TO MAKE MISSOURI COAL UTILIZATION MORE ATTRACTIVE. WE DON'T PROPOSE TO HAVE ALL THE ANSWERS OR THE SOLUTIONS TO THE PROBLEMS FACING THE MISSOURI COAL INDUSTRY. THAT IS WHY WE ARE ASKING THIS SUBCOMMITTEE TO LOOK INTO THE POSSIBILITY OF FORMULATING A MISSOURI COAL COMMISSION FOR COAL DEVELOPMENT BOARD TO ADDRESS THESE ISSUES AND FORMULATE SOLUTIONS. WE WOULD LIKE TO ASK THIS SUBCOMMITTEE TO CONSIDER AND INVESTIGATE SOME OF THE FOLLOWING PROPOSALS.

AS RECENTLY AS 1986 TWO REPRESENTATIVES IN THE STATE OF KANSAS INTRODUCED HOUSE BILL 223 THAT CONTAINS EXCELLENT LANGUAGE FOR STATES TO MAKE A COMMITMENT TO COAL RESOURCES IN FORMING A STATE COAL POLICY DEVELOPMENT BOARD OR STATE COAL COMMISSION. THIS LANGUAGE IS ENCLOSED FOR YOUR INSPECTION IN ADDITION TO COAL COMMISSION DIRECTIVES THAT WERE PASSED RECENTLY IN INDIANA AND IN THE STATE OF OKLAHOMA. WE FEEL THAT MANY TIMES A STATE AUTHORIZED STATE COAL COMMISSION MADE UP OF MEMBERS OF THE LEGISLATIVE BODY AND MEMBERS OF THE COAL PRODUCTION CYCLE CAN HAVE POSITIVE IMPACT IN DECIDING THE BEST FUTURE COURSE FOR STATE COMMITMENT TO ASSIST THE COAL INDUSTRY.

IN ADDITION TO MISSOURI I ALSO SERVE AS THE LEGISLATIVE COORDINATOR FOR THE STATE OF KANSAS, OKLAHOMA, AND INDIANA, IN THOSE AREAS WE FACE MANY OF THE SAME PROBLEMS THAT FACE MISSOURI TODAY. MOST OF OUR COAL RESOURCES WERE CONCENTRATED IN A CENTRAL GEOGRAPHIC AREA AND WE FELT THERE WAS A NEED TO CONSOLIDATE THE MANY COMPONENTS OF THE COAL INDUSTRY AND TO PROMOTE AND PURSUE LEGISLATION TO MAKE THE COAL INDUSTRY MORE ATTRACTIVE FOR THESE RESPECTIVE STATES. A COAL COMMISSION WAS ESTABLISHED IN 1983 IN INDIANA AND IN 1985 IN OKLAHOMA. ADDITIONALLY, AS PREVIOUSLY MENTIONED, THERE WERE PROPOSALS IN THE 1986 SESSION OF THE KANSAS GENERAL ASSEMBLY AND THERE WILL BE ADDITIONAL PROPOSALS IN 1987. SEVERAL PROPOSALS HAVE COME FROM THIS COAL COMMISSION RECOMMENDATION FROM THESE STATES THAT HAVE BEEN POSITIVELY ACTED UPON BY THOSE STATE'S GENERAL ASSEMBLIES. WE ARE NOT SUGGESTING THAT ALL OF THESE PROPOSALS FROM THOSE STATES ARE PERTINENT TO MISSOURI, BUT THAT A STATE COMMITMENT TO COAL THROUGH A COAL COMMISSION OR A LEGISLATIVE SUBCOMMITTEE, OR GROUP CAN HAVE POSITIVE IMPACTS. MANY OF THESE PROPOSALS MAY BE USEFUL FOR MISSOURI IN ADDITION TO OTHER SUBJECT AREA. I HAVE ENCLOSED FOR YOUR PERUSAL A COPY OF THE LEGISLATIVE MANDATE IN ACTING COAL COMMISSIONS FOR THE STATE OF INDIANA AND OKLAHOMA.

USING OTHER AREAS AS A BACKGROUND WHAT CAN THE STATE OF MISSOURI DO TO PROMOTE THE USE AND DEVELOPMENT OF MISSOURI COAL?

**ESTABLISHMENT OF A STATE COAL COMMISSION TO INVESTIGATE WAYS TO PROMOTE THE DEVELOPMENT OF COAL. THIS WAS PASSED IN INDIANA IN 1983, OKLAHOMA IN 1985 AND IS A LEGISLATIVE PRIORITY FOR THE STATE OF KANSAS IN 1987. SUCH A COAL DEVELOPMENT BOARD OR LEGISLATIVE COAL COMMITTEE IN THE STATE OF MISSOURI COULD SERVE AS A CLEARING HOUSE FOR COAL DEVELOPMENT LANGUAGE AND BE A FEEDSTOCK OF INFORMATION UTILIZING THE VARIOUS PARTIES INVOLVED IN THE COAL PRODUCTION CYCLE. TOWARDS THIS END WE THINK THIS SUBCOMMITTEE IS AN EXCELLENT FIRST STEP IN THAT DIRECTION AS YOU HAVE RECEIVED A WEALTH OF INFORMATION FROM THE VARIOUS PEOPLE CONCERNED ABOUT THE COAL INDUSTRY. WE WOULD HOPE THAT THE INFORMATION RECEIVED AT YOUR PREVIOUS MEETINGS AND THE INFORMATION RECEIVED TODAY CAN BE SUBMITTED FOR POSITIVE LEGISLATIVE ACTION DESIGNED TO ENHANCE THE UTILIZATION OF MISSOURI COAL.

**RATE BASE TREATMENT FOR SCRUBBERS FOR POLLUTION CONTROL EQUIPMENT. WE FEEL IT IS VERY POSSIBLE THAT ELECTRIC GENERATING UTILITIES MIGHT USE THEIR STATE COAL RESOURCES MORE OFTEN IF THEY WERE ABLE TO RECOVER, IN AN ORDERLY AND ECONOMIC MANNER, THE COST ATTRIBUTED TO THE PURCHASE AND CONSTRUCTION OF POLLUTION CONTROL FACILITIES AND DEVICES. IN SHORT, THIS WOULD ALLOW UTILITIES TO CHARGE THE RATEPAYERS FOR CONSTRUCTION WORK IN PROGRESS FOR POLLUTION CONTROL EQUIPMENT WHEN THAT UTILITY WOULD BE USING MISSOURI COAL. IT SHOULD BE NOTED THAT THIS INCENTIVE SHOULD ONLY APPLY IF THE UTILITY CHOOSES TO BURN COAL FROM MISSOURI. THIS WAS PASSED IN THE 1985 INDIANA GENERAL ASSEMBLY AND LAYS A FIRM FOUNDATION FOR UTILITIES TO HAVE A CHOICE, BASED ON ECONOMICS, WHETHER TO USE LOW-SULFUR OUT OF STATE COMPLIANCE COAL OR INVEST IN POLLUTION CONTROL EQUIPMENT AND THE USE OF IN STATE COAL PROMOTING JOBS AND ECONOMIC DEVELOPMENT. THIS PARTICULAR LEGISLATIVE MEASURE IS EXTREMELY IMPORTANT GIVING THE

CURRENT ACID RAIN PARANOIA THAT IS RUNNING THROUGH CONGRESS. JUST LAST WEEK I WAS IN WASHINGTON AND THE MAIN TOPIC OF DISCUSSION OF THE MANY REPRESENTATIVES THAT I HAD THE OPPORTUNITY TO TALK TO WAS ACID RAIN. IT APPEARS THAT ACID RAIN LEGISLATION ON THE FEDERAL LEVEL IS DEAD FOR 1986, BUT IT ALSO APPEARS THAT 1987 MIGHT BE THE YEAR THAT ACID RAIN LEGISLATION, OF SOME MAGNITUDE OR THE OTHER WILL BE ENACTED. THE UNITED MINE WORKERS FEEL ALL THE COAL PRODUCING STATES SHOULD BE EQUIPPED WITH LEGISLATIVE LANGUAGE TO PROTECT THEIR RESPECTIVE COAL STATES PRODUCTION OF COAL AND THE JOBS ASSOCIATED WITH THAT INDUSTRY.

**RESEARCH AND DEVELOPMENT. WE WOULD URGE THIS COMMITTEE AND/OR A STATE COAL COMMISSION OR BODY TO INVESTIGATE AND RESEARCH THE MANY DIFFERENT TECHNOLOGIES THAT ARE BEING DEVELOPED TO BURN COAL CLEANLY. SOME OF THESE PROCESSES ARE LIMESTONE FLUIDIZED BED COMBUSTION, LIMESTONE INJECTED MULTISTAGED BURNERS, WAT SCRUBBERS, AND OF COURSE COAL WASHING. ADDITIONALLY, WE WOULD ASK THAT THIS COMMITTEE INVESTIGATE ALLOWING UTILITIES TO SPEND MONEY FOR RESEARCH AND DEVELOPMENT IN USING MISSOURI COAL BE ALLOWED TO RECOVER THEIR RESEARCH AND DEVELOPMENT EXPENSES THROUGH GENERAL RATE INCREASES. THIS PARTICULAR LEGISLATION WAS PASSED IN THE 1985 INDIANA GENERAL ASSEMBLY. ALSO MISSOURI MIGHT WANT TO ADDRESS RESEARCH AND DEVELOPMENT THROUGH THEIR UNIVERSITIES AND INVESTIGATE WAYS TO MAKE MISSOURI COAL MORE ATTRACTIVE IN MISSOURI.

**BURNING OF IN STATE COAL FOR STATE INSTITUTIONS. SOME STATES HAVE IN THEIR STATUTES REGULATIONS THAT REQUIRE PURCHASE OF STATE COAL FOR STATE INSTITUTIONS WHERE PERMISSABLE BY REGULATIONS. THIS MIGHT BE AN AREA TO ADDRESS IN MISSOURI. INDIANA HAS SUCH A LAW AND A COPY IS ATTACHED FOR YOUR USE. THIS IS A VERY IMPORTANT FIRST STEP IN THE UTILIZATION OF ONE STATES OWNED RESOURCES WHEN A STRONG POLICY STATEMENT IS MADE THAT

ANYTIME STATE TAX MONEY IS USED TO FUND UNIVERSITIES AND OTHER PUBLIC INSTITUTIONS THAT WHEN COAL IS USED AS THE PRIMARY FUEL SOURCE THAT COAL WOULD BE MISSOURI COAL. WE FEEL VERY STRONGLY THAT WHEN MISSOURI COAL MINERS TAX DOLLARS AND MISSOURI COAL OPERATORS DOLLARS GO TO SUPPORT OUR MANY FINE PUBLIC INSTITUTIONS IN THE VARIOUS COAL STATES THE VERY LEAST IN EXCHANGE FOR THESE TAX DOLLARS THAT THESE INSTITUTIONS WOULD USE THE AVAILABLE MISSOURI COAL RESOURCES WHERE APPLICABLE.

**TAX INCENTIVES FOR COAL CONVERSION AND COAL CLEANING. SOME STATES HAVE INTRODUCED LEGISLATION THAT HAS OFFERED TAX ABATEMENT TO INDUSTRIES AND UTILITIES THAT INVEST IN COAL CLEANING METHODS, COAL WASHING SYSTEMS, CHEMICAL TREATMENT, FLUE GAS DESULFURIZATION, AND OTHER TECHNOLOGIES DESIGNED TO ENHANCE THE MARKETABILITY OF THEIR COAL. RECENTLY THE STATE OF VIRGINIA PASSED LEGISLATION THAT ALLOWS \$1.00 PER TON TAX CREDIT FOR ALL COAL PRODUCED OVER THE PRECEDING YEARS COAL PRODUCTION. TAX INCENTIVES WOULD ALSO BE APPLIED TO UTILITIES WHO MIGHT WISH TO BURN MISSOURI COAL IN LIEU OF OUT OF STATE COAL. THIS LEGISLATION IS EXTREMELY VALUABLE IN THAT IT ENCOURAGES, VERY STRONGLY, THE ECONOMICAL USE OF MISSOURI COAL FOR MISSOURI COAL UTILIZATION. IF A UTILITY WERE FACED WITH A CHOICE OF USING WYOMING COAL OR ILLINOIS COAL VERSUS MISSOURI COAL AND THE UNDERLYING FACTOR WAS ECONOMICS THE \$1.00 A TON TAX CREDIT USING MISSOURI COAL MIGHT GIVE THE EDGE TO THE MISSOURI COAL INDUSTRY AND PROVIDE JOBS FOR HUNDREDS OF MISSOURI COAL MINERS. I DON'T HAVE AVAILABLE INFORMATION TODAY BUT IT IS MY UNDERSTANDING THAT THE TAX RESOURCES GENERATED BY A TON OF COAL IS WELL IN EXCESS OF \$1.00 TAX CREDIT THAT WOULD BE GIVEN TO THE MISSOURI COAL USER. THEREFORE, THIS MEASURE WOULD NOT COST THE STATE ANY ADDITIONAL REVENUES, BUT IN FACT WOULD PROVIDE ADDITIONAL REVENUES FOR THE MISSOURI TREASURER. THE OBVIOUS BY-PRODUCT OF THIS IS STRONG ECONOMIC DEVELOPMENT IN THE COAL AREAS OF MISSOURI AND CONTINUED PROSPERITY FOR THE COAL MINERS WISHING TO MAKE THEIR LIVING IN THE COAL INDUSTRY.

**BLENDING OF COAL. In 1986, OKLAHOMA PASSED A BILL THAT WAS SIGNED BY THE GOVERNOR THAT WOULD REQUIRE A 10% BLEND OF OKLAHOMA COAL IN ALL STATE UTILITIES THAT USE COAL. OKLAHOMA IS SIMILAR IN NATURE TO THE STATE OF MISSOURI IN THAT ANNUAL COAL PRODUCTION IS ONLY A FEW MILLION TONS OF COAL PER YEAR AND THE STATE IS IMPORTING TENS OF MILLIONS OF TONS OF WESTERN AND OTHER COAL INTO THEIR COAL FIRED BOILERS. THE STATE OF OKLAHOMA FELT THAT THIS LEGISLATION WOULD BE A REAL COMMITMENT TO THE OKLAHOMA COAL INDUSTRY AND TO THE MANY PEOPLE WHO MAKE THEIR LIVING IN THE MINING INDUSTRY OF OKLAHOMA. A COPY OF THIS LEGISLATION AND SUPPORTED MATERIAL IS ATTACHED FOR YOUR USE. THIS LEGISLATION OR SOMETHING SIMILAR MIGHT BE SOMETHING THAT MISSOURI MIGHT WANT TO INVESTIGATE THROUGH A STATE COAL COMMISSION OR BY THIS SUBCOMMITTEE TO MAKE MISSOURI COAL MORE ATTRACTIVE. AS I SAID PREVIOUSLY, OKLAHOMA IS SIMILAR TO MISSOURI THAT IT ONLY MINES 1.8 MILLION TONS IN 1984 AND PURCHASED 12.5 MILLION TONS OF COAL FROM OTHER STATES IN THAT YEAR. ALL READY THIS LEGISLATION HAS PROVED SUCCESSFUL IN THAT OKLAHOMA GAS & ELECTRIC IS DOING TEST BURNS IN SEVERAL OF THEIR PLANTS IN ANTICIPATION OF USING MORE OKLAHOMA COAL IN THEIR BOILERS. HOPEFULLY, THIS COMMITTEE COULD LOOK INTO THIS LEGISLATION AND PROMOTE SOMETHING IN THE STATE OF MISSOURI THAT WOULD HAVE SIMILAR BENEFITS.

**WYOMING COAL "IMPORTED" TO MISSOURI. In 1985, THE MISSOURI UTILITIES IMPORTED IN EXCESS OF 3.5 MILLION TONS OF WYOMING COAL INTO THE STATE OF MISSOURI FOR USE IN THEIR BOILERS. THIS SEEMS EXTREMELY ODD WHEN THERE ARE HUNDREDS OF MILLIONS OF TONS OF RECOVERABLE COAL RESOURCES IN THE STATE OF MISSOURI FOR EASY ACCESS TO THE UTILITY BOILERS. THERE ARE ALSO MANY WAYS TO CLEAN THE HIGH SULFUR QUALITY OF MISSOURI COAL. IN ESSENCE WHAT THE MISSOURI UTILITIES ARE REQUIRING THE UTILITY RATEPAYERS TO PAY FOR ARE THE COST OF THE WYOMING COAL AT APPROXIMATELY \$10 TO \$12 PER TON, THE EXTREMELY HIGH TRANSPORTATION COST RANGING FROM \$20 TO \$30 PER TON, AND ALSO THE 17% SEVERANCE TAX OF THE WYOMING COAL. IN ESSENCE THERE IS TRANSFER OF DOLLARS FROM MISSOURI CONSUMERS TO THE STATE OF WYOMING TO BUILD THEIR SCHOOLS, ROADS, AND PROVIDE A

QUALITY WAY OF LIFE IN THEIR STATE AT THE MISSOURI RATEPAYERS EXPENSE. ALARMINGLY, THIS TREND WILL PROBABLY CONTINUE TO INCREASE UNLESS SOMETHING IS DONE TO ENHANCE THE UTILIZATION OF MISSOURI COAL. JUST USING 1985 AS A BASE YEAR THOSE 3.5 MILLION TONS OF COAL BROUGHT IN TO MISSOURI FROM WYOMING GENERATED A NET OUT FLOW OF MISSOURI CONSUMER DOLLARS OF \$7.1 MILLION TO THE STATE OF WYOMING FOR SEVERANCE TAXES ALONE. THIS IS BASED ON THE FACT OF 3.5 MILLION TONS OF COAL AT THE FUEL ON BOARD PRICE OF \$12.00 TIMES 17% SEVERANCE TAXES. I AM SURE THAT THE COAL MINERS IN THE STATE OF MISSOURI AND THE CONSUMERS WHO PURCHASE THEIR POWER IN THE STATE OF MISSOURI WOULD RATHER HAVE THIS \$7 MILLION OF COAL SEVERANCE TAX BEING PAID TO THE STATE OF MISSOURI RATHER THAN TO BUILD THE ROADS AND SCHOOLS FOR THE STATE OF WYOMING. THAT IS WHY WE FEEL IT IS VITALLY IMPORTANT FOR THIS SUBCOMMITTEE AND THE ENTIRE MISSOURI GENERAL ASSEMBLY TO ENACT LEGISLATION TO MAKE MISSOURI COAL MORE COMPETITIVE TO FIND WAYS TO UTILIZE MISSOURI COAL IN MISSOURI MARKETS. THE REAL IRONY IN THIS SITUATION IS WHEN COAL MINERS IN WESTERN MISSOURI ARE REQUIRED TO PURCHASE POWER THAT IS FUELED BY WYOMING COAL WHILE IN THE PROCESS COSTING THEM THEIR JOBS. THIS IS EXACTLY WHAT IS HAPPENING IN ONE OF THE MINES IN THE STATE OF MISSOURI AT THE PEABODY COAL COMPANY POWER MINE. SOMETIME IN THE NEAR FUTURE THIS MINE IS SCHEDULED TO CLOSE. FOR YEARS THE POWER MINE HAS SHIPPED THEIR COAL TO KANSAS POWER AND LIGHT MONTROSE STATION. IT APPEARS THAT IN 1987 AND BEYOND THIS STATION WILL NOW BE USING WYOMING LOW-SULFUR COAL. IN ESSENCE WYOMING COAL IMPORTED INTO A MISSOURI UTILITY IS COSTING COAL MINERS THEIR JOBS TODAY. AND THE SAD FACT OF THE MATTER IS THAT THESE SAME COAL MINERS WHO ARE FACING UNEMPLOYMENT LINES ARE GOING TO HAVE TO BUY POWER GENERATED BY WYOMING COAL WITH A PORTION OF THEIR CONSUMER DOLLARS GOING BACK TO THE STATE OF WYOMING TO PROVIDE ECONOMIC BENEFITS IN THAT STATE. THIS IS A VERY REAL SITUATION IN THE STATE OF MISSOURI AND UNLESS WE RECEIVE SOME SORT OF LEGISLATIVE DIRECTION PROMOTING THE UTILIZATION OF MISSOURI WE ARE AFRAID THAT THIS MIGHT CONTINUE IN OTHER AREAS.

OBVIOUSLY, THE PREVIOUSLY OUTLINED MEASURES FOR UTILIZATION FOR MISSOURI COAL ARE NOT COMPLETE AND OBVIOUSLY THE MINE WORKERS DO NOT PROCLAIM TO HAVE ANY OR ALL THE ANSWERS ON HOW WE CAN MAKE MISSOURI COAL MORE COMPETITIVE. HAVING BEEN INVOLVED IN THE LEGISLATIVE PROCESS IN THE COAL FIELD STATES IN THE LAST FIVE YEARS I CAN SAY THERE IS NO ONE PROBLEM OR NO ONE SINGLE LEGISLATIVE OR RULE CHANGE THAT WOULD EXPAND THE MISSOURI COAL INDUSTRY OVERNIGHT. MANY VARIABLES CONTRIBUTE TO LOW PRODUCTION OF MISSOURI COAL--TOTAL RESERVES, SULFUR CONTENT, UTILITY PRACTICES, TAX STRUCTURE, STATE INCENTIVES OR DISINCENTIVES TO NAME A FEW. WE DON'T CLAIM TO HAVE ALL THE ANSWERS FOR ALL THE PROBLEMS FACING MISSOURI COAL NOR DO WE PROPOSE THAT LEGISLATIVE AGENDAS IN INDIANA, OKLAHOMA, KANSAS, OR OTHER COAL FIELD STATES ARE THE ANSWERS. WHAT I KNOW FOR SURE THAT SOMETHING MUST BE DONE IF MISSOURI WANTS TO SERIOUSLY MAKE A COMMITMENT TO COAL RESOURCES IN MISSOURI. IN CLOSING, I WOULD LIKE TO ASK THIS COMMITTEE TO SERIOUSLY CONSIDER MANY OF THESE LEGISLATIVE OUTLINES PRESENTED TODAY AND TO LOOK INTO THE ESTABLISHMENT OF THE MISSOURI COAL COMMISSION SO TOGETHER THE STATE AND THE COMPONENTS OF THE COAL PRODUCTION CYCLE CAN PURSUE THE LEGISLATIVE MEASURES NECESSARY ASSOCIATED WITH MISSOURI COAL PRODUCTION AND PUT COAL MINERS BACK TO WORK IN THE STATE OF MISSOURI. AGAIN I WOULD LIKE TO THANK REPRESENTATIVE DON MCQUITTY AND THIS SUBCOMMITTEE FOR YOUR CONCERN WITH MISSOURI COAL RESOURCES. IT IS EXTREMELY IMPORTANT THAT YOU HAVE HELD THESE SERIES OF MEETINGS IN INVESTIGATING THE WAYS TO UTILIZE MISSOURI COAL. WE LOOK FORWARD TO WORKING WITH YOU IN THE NEAR AND LONG TERM FUTURE SO THAT TOGETHER WE CAN MAKE THE MISSOURI COAL INDUSTRY A MORE COMPETITIVE PLACE AND PUT COAL MINERS BACK TO WORK. I WOULD BE MOST HAPPY TO RESPOND TO ANY QUESTIONS YOU MIGHT HAVE.

ATTACHMENTS

1. H.B. 2293 BY REP. WILBERT. LEGISLATION OFFERED BY REP. WILBERT TO BEGIN A DIVISION OF COAL DEVELOPMENT.
2. OUTLINE FOR INDIANA COAL COMMISSION. THE FORMAT FOR THE INDIANA COAL COMMISSION PASSED IN THE 1983 INDIANA GENERAL ASSEMBLY. THE COMMISSION IS STILL IN PLACE AND FUNCTIONING.
3. LEGISLATIVE LANGUAGE FORMING THE OKLAHOMA MINING COMMISSION. THIS COMMISSION WAS FORMED IN THE 1985 OKLAHOMA GENERAL ASSEMBLY. IN ADDITION TO SERVING AS A POLICY MAKING BOARD THIS COMMISSION ALSO IS CHARGED WITH PROPOSING LEGISLATION FOR EXPANDING COAL MARKETS IN OKLAHOMA (SEE SECTION 11 & 12).
4. REQUIRED PURCHASE OF STATE COAL. THIS STATUTE, FROM INDIANA, REQUIRES IN-STATE COAL TO BE USED IN ALL STATE INSTITUTIONS, WHEN PERMISSABLE BY CLEAN AIR STANDARDS.
5. BLENDING OF IN-STATE COAL. THIS LEGISLATION, PASSED IN THE 1986 OKLAHOMA LEGISLATURE, REQUIRE A 10% BLEND OF OKLAHOMA COAL IN ALL COAL FIRED PLANTS IN OKLAHOMA. CERTAIN RESTRICTIONS APPLY, (SEE SECTION 2)
6. OPINION & INFORMATION AT OKLAHOMA 10% BLEND. EDITORIAL AND UTILITY INFORMATION ON THE OKLAHOMA LAW THAT REQUIRES 10% OKLAHOMA COAL BLEND.
7. ILLINOIS LAWS. THIS LEGISLATION, PASSED IN ILLINOIS, DEALS WITH FUEL ADJUSTMENT AND CWIP FOR POLLUTION CONTROLS. THE ENABLING DRAFT LEGISLATION CAN BE MADE AVAILABLE.
8. VARIOUS NEWSPAPER CLIPPINGS DEPICTING THE COAL FIELD USE OF COAL.

HOUSE BILL No. 2293

By Representative Wilbert

2-12

0017 AN ACT concerning the Kansas department of economic devel-
0018 opment; establishing a division of coal development.

0019 *Be it enacted by the Legislature of the State of Kansas:*

0020 Section 1. (a) There is hereby established, within and as a
0021 part of the department of economic development, a division of
0022 coal development, the head of which shall be the director of coal
0023 development. Under the supervision of the secretary of eco-
0024 nomic development, the director of coal development shall ad-
0025 minister the division of coal development. The secretary of
0026 economic development shall appoint the director of coal devel-
0027 opment, and such director shall serve at the pleasure of the
0028 secretary of economic development. The director of coal devel-
0029 opment shall be in the unclassified service under the Kansas
0030 civil service act and shall receive an annual salary fixed by the
0031 secretary of economic development and approved by the state
0032 finance council.

0033 (b) The division of coal development is hereby authorized to:

0034 (1) Make recommendations concerning the utilization of
0035 Kansas coal by Kansas utilities;

0036 (2) develop methods by which the Kansas coal industry may
0037 be expanded;

0038 (3) make provisions for expansion of the market for Kansas
0039 coal;

0040 (4) make recommendations to encourage industrial and resi-
0041 dential energy consumers to use Kansas coal;

0042 (5) recommend modifications, if any, of existing state laws,
0043 rules or regulations concerning the use of Kansas coal; and

0044 (6) take such other state measures to encourage the use of

*appoint
members
including
legis/tech*

HB 2293

2

0046 Sec. 2. This act shall take effect and be in force from and
0047 after its publication in the statute book.

OUTLINE FOR INDIANA COAL COMMISSION

I. Composition

The Commission would be composed of 11 members in the following classes:

- A. The Lt. Governor, who would appoint
- B. Two representatives of the utility industry; two representatives of the coal industry; one representative of organized labor; one representative of the public with energy, environmental and consumer expertise.
- C. Two members of the Indiana House of Representatives from opposing political parties, selected by their respective party leaders; two members of the Indiana Senate of opposite political parties, selected by their respective party leaders.

The Chairman and Vice Chairman would be from Group B and would be elected by majority vote of all members.

II. Mandate of the Commission

The Commission would be charged by the General Assembly to report back to the Legislature no later than December 15, 1981 with specific recommendations on a list of issues affecting the future of the Indiana coal industry and its related industries, which issues would include, but not be limited to:

- A. Environmental regulations affecting the consumption of Indiana coal both in this state and other states.
- B. Statutory/institutional problems inhibiting the use of Indiana coal by Indiana utilities and industry.
- C. The coal transportation network and associated issues.
- D. Factors affecting the importation of coal into Indiana.
- E. The potential for exploiting the foreign export market.
- F. The potential market for Indiana coal as a feedstock for other alternative fuels.
- G. A review of the various sulfur-removal technologies and their potential impact on the Indiana coal market.

III. Staff Resources

The Commission would have available to it the staff resources of the Department of Commerce. Two staff members thereof would be designated by the Lt. Governor as having primary responsibility for staffing the Commission. The Chairman of the Commission, with approval of a majority of the members, would have the authority to retain outside experts, including legal counsel, to assist the Commission in fulfilling its mandate. The utility and coal company representatives would designate an individual or individuals within their respective companies to assist the Commission.

iv. Funding

A fund shall be established within the Department of Commerce to fund the Commission's activities whenever the Commission, by majority vote, determines that outside expertise, including legal counsel, should be retained. Whenever a need arises, as defined by the Commission, the funds therefor shall be derived 50% from funds made available to the Department of Commerce for the Commission's activities and 50% from contributions from the utility industry, coal companies and any other organizations which may be called upon to contribute to the Commission's operating fund.

An Act

ENROLLED SENATE
BILL NO. 332

BY: STIPE, TAYLOR, FORD,
JOHNSON and SCHUELEIN of
the SENATE
and
VAUGHN, WHORTON, LOGAN,
COMBS, SHURDEN, KELLY and
STOTTLEMYRE of the HOUSE

AN ACT RELATING TO MINES AND MINING; AMENDING 45 O.S. 1981, SECTIONS 1, AS LAST AMENDED BY SECTION 15, CHAPTER 333, O.S.L. 1983, 2, AS AMENDED BY SECTION 7, CHAPTER 296, O.S.L. 1982, 5, AS AMENDED BY SECTION 9, CHAPTER 296, O.S.L. 1982, 6 AND SECTION 4, CHAPTER 266, O.S.L. 1982, (45 O.S. SUPP. 1984, SECTIONS 1, 2, 5 AND 43), WHICH RELATE TO THE STATE MINING BOARD AND CERTAIN MINERS; CREATING OKLAHOMA MINING COMMISSION; PROVIDING CERTAIN COMMISSION DUTIES INCLUDING POLICY FOR THE DEPARTMENT OF MINES; PROVIDING CERTAIN TERMS FOR COMMISSION MEMBERS; EXCEPTING ACT FROM CERTAIN LEGISLATION; PROVIDING CERTAIN STATUTORY REFERENCES; DESIGNATING CERTAIN CHIEF EXECUTIVE OFFICERS AS CHIEF MINE INSPECTOR AND PROVIDING CERTAIN DUTIES; STATING DUTIES OF THE DIRECTOR; AUTHORIZING OKLAHOMA MINING COMMISSION TO ISSUE CERTAIN CERTIFICATES OF COMPETENCY; DESIGNATING COST OF CERTIFICATES; DIRECTING CERTAIN OFFICERS OF OKLAHOMA MINING COMMISSION TO KEEP RECORDS OF ALL CERTIFICATES ISSUED; PROVIDING FOR CERTAIN NOTICES; PROVIDING FOR CODIFICATION; REPEALING SECTION 2, CHAPTER 296, O.S.L. 1982 (45 O.S. SUPP. 1984, SECTION 1.1), WHICH RELATES TO THE POWERS AND DUTIES OF THE STATE MINING BOARD; AND PROVIDING AN EFFECTIVE DATE.

IT ENACTED BY THE PEOPLE OF THE STATE OF OKLAHOMA:

SECTION 1. AMENDATORY. 45 O.S. 1981, Section 1, as last amended by Section 15, Chapter 333, O.S.L. 1983 (45 O.S. SUPP. 1984, SECTION 1), is amended to read as follows:

Section 1. A. There is hereby re-created created the State Mining Board Oklahoma Mining Commission. The Board Commission shall be composed of ten (10) nine (9) members as follows:

Four (4) strip miners of which at least two (2) shall represent the industry mining noncoal mineralist

Two (2) practical miners who shall hold an underground mine superintendent or an underground mine foreman or fore boss certificate of competency issued by the Board;

One (1) non-supervisory miner who has been actively employed in an underground coal mine for at least five (5) years and shall hold a non-supervisory miner Oklahoma Mine Boss Certificate

Two (2) superintendents or owners of coal mines; and

The Chief Mine Inspector who shall be the executive officer of the Board

A practical miner shall be a person who has been actively engaged in mining for at least two (2) years. The Governor shall receive recommendations as to the appointment of mine members of the Board from miners and shall receive recommendations as to the appointment of the coal operator members from the coal operators. The members shall be appointed by the Governor and with the consent of the Senate for a term of four (4) years or until their successors are appointed and qualified. Members of the Board may be removed for cause. Members of the Board shall have been qualified electors of the State of Oklahoma for at least three (3) years prior to their appointment to be appointed by the Governor with the advice and consent of the Senate.

The Commission shall constitute a body corporate of the State of Oklahoma, and exercise by the Commission of the powers conferred by this act shall be deemed and shall be held to be an essential governmental function of the State of Oklahoma. Appointment of members shall not be subject to any act to be known as the Oklahoma Boards and Commissions Uniform Districting Act. Beginning January 1, 1986, one member shall be appointed for a term of one (1) year; one member shall be appointed for a term of two (2) years; one member shall be appointed for a term of three (3) years; one member shall be appointed for a term of four (4) years; one member shall be appointed for a term of five (5) years; two members shall be appointed for a term of six (6) years; and two members shall be appointed for a term of seven (7) years. Each member shall be a qualified elector of this state.

The membership shall consist of at least one person with a background in engineering or geology; one person with a background in labor or workers' safety; one person with a background in agriculture or soil conservation; one person with a background in transportation; one person with a background in economic development or banking; one person with a background in public utilities; one person with a background in natural resources; and two persons selected at large. All persons appointed to the Commission must be able to meet, at the time they take the constitutional and statutory oath of office, the provisions in Section 37 of this title, 10 U.S.C. Section 1257(c), and 30 C.F.R. Section 765.

B. The Board Commission shall meet at such times and places as the members may deem most convenient for the transaction of business at least six times annually. A majority of the Board Commission shall constitute a quorum. Each member of the State Mining Board shall be reimbursed for actual and necessary expenses incurred in the discharge of official duties as provided in the State Travel Reimbursement Act. Commission members may be removed only for cause.

Whenever a vacancy shall occur, the Governor shall appoint a person to fill the unexpired term of the vacant office. Each member of the Commission shall take and subscribe to the constitutional and statutory oath of office prior to the performance of any duties as a Commission member.

C. Two members of the Board or the executive officer may call a meeting of the Board at any time and at any place within the state. Only in case of a tie vote shall the executive officer have the right to vote. Prior to all meetings of the Board, notice of such meetings shall be mailed to all mine operators in this state. The Commission shall reorganize annually by electing a chairman, vice chairman and

ining Commission is empowered to appoint a special counsel for such proceedings.

SECTION 11. NEW LAW A new section of law to be codified in the Oklahoma Statutes as Section 45 of Title 45, unless there is created a duplication in numbering, reads as follows:

In addition to its other powers, the Oklahoma Mining Commission is authorized and directed, within the limits of funds available to it, to engage in a continuing study of the mining laws of this state, and of changes therein required in order to carry out to the greatest practicable extent the policies, goals, objectives and recommendations of the Commission, and to make recommendations and prepare proposed legislation for such purposes. Such recommendations and proposed legislation shall, as they are completed, be filed with the President Pro Tempore of the Senate and the Speaker of the House of Representatives.

SECTION 12. NEW LAW A new section of law to be codified in the Oklahoma Statutes as Section 46 of Title 45, unless there is created a duplication in numbering, reads as follows:

The Oklahoma Mining Commission is authorized and directed, within the limits of funds available to it, to study ways to expand existing markets and create new markets for Oklahoma coal and other minerals, and to make recommendations to the Governor and Legislature for such purposes.

SECTION 13. NEW LAW A new section of law to be codified in the Oklahoma Statutes as Section 47 of Title 45, unless there is created a duplication in numbering, reads as follows:

Funding for the Oklahoma Mining Commission's activities shall be derived from funds appropriated to the Department of Mines for operating expenses. Funds required for any third party studies called for by a majority vote of the Commission members shall come from contributions by the mining and related industries, public and foundations, as well as those funds made available by the Department of Mines.

SECTION 14. REPEALER Section 2, Chapter 296, O.S.L. 1982 5 O.S. Supp. 1984, Section 1.1), is hereby repealed.

SECTION 15. This act shall become effective January 1, 1986.

Correctly Enrolled John R. Miller

Passed the Senate the 2d day of July, 1985.

Acting President John R. Miller of the Senate

Passed the House of Representatives the 2d day of July, 1985.

Acting Speaker Jim R. Glover of the House of Representatives

OFFICE OF THE GOVERNOR

Received by the Governor this 2nd day of July, 1985 at 9:10 o'clock P. M.

By: Rusan Witt

Approved by the Governor of the State of Oklahoma the 8th day of July, 1985 at 4:19 o'clock P. M.

Benjamin
Governor of the State of Oklahoma

OFFICE OF THE SECRETARY OF STATE

Received by the Secretary of State this 9th day of July, 1985 at 11:05 o'clock A. M.

By: John R. Miller

such deputies, assistants, and employees as may be necessary efficiently to administer the duties provided by this act, all such appointments to be subject to the approval of the governor. (Formerly: Acts 1945, c.219, s.10).

5-17-2-11 Definitions

Sec. 11. The following words and phrases when used in this act shall for the purpose of this act, unless a different meaning appears from the context, have the following meanings:

(A) The "state of Indiana" shall mean the state of Indiana, or any board, commission, bureau, department, division, officer, agency, or instrumentality thereof.

(B) A "political subdivision of the state of Indiana" shall mean any school city corporation, school township, civil township, any county of the state, any incorporated city or town of the state, or any officer, board, bureau, commission, department, division, agency, or instrumentality thereof.

(C) Any "unit of government" shall mean the state of Indiana as defined in (A) of this section, or any political subdivision of the state as defined in (B) of this section.

(D) The "federal government" shall mean the United States of America, or any officer, board, bureau, commission, department, division, agency or instrumentality thereof.

(E) "Sale" and "transfer" shall mean and include sale, conditional sale, lease with option to purchase, lease, contract for use, grant or gift. (Formerly: Acts 1945, c.219, s.11).

Chapter 3. Coal Manufactured in Indiana Must be Used in Institutions — Penalty.

5-17-3-1 Required purchase of Indiana coal

5-17-3-2 "Institution" defined

5-17-3-3 Violations; penalties

5-17-3-1 Required purchase of Indiana coal

Sec. 1. The proper purchasing authority of every institution in the State of Indiana which is supported in whole or in part by public funds, and who is authorized and required to purchase coal for fuel purposes in the operation of any such institution shall be required to purchase and use coal which is mined in the State of Indiana: Provided, That in the event low sulphur coal is required by federal regulations, the purchasing authority is authorized to accept coal from an out-of-state supplier making the lowest or best bid on such low sulphur coal. (Formerly: Acts 1931, c.91, s.1; Acts 1947, c.308, s.1; Acts 1949, c.189, s.1; Acts 1972, P.L.45, SEC.1).

5-17-3-2 "Institution" defined

Sec. 2. The term "institution" as used in this act shall be construed to include all institutions maintained by the state or by any municipal corporation or political subdivision thereof. (Formerly: Acts 1931, c.91, s.2).

5-17-3-3 Violations; penalties

Sec. 3. Any trustee or officer who shall violate any of the provisions of this act shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined in any sum not exceeding one hundred dollars (\$100). (Formerly: Acts 1931, c.91, s.3).

5-18-1-1 Determination of fair market value; procedure for sale, etc.

Sec. 1. Except as provided otherwise in the second grammatical paragraph of this section, any public body which owns any real estate either improved or unimproved, may, upon a finding and declaration that such real estate is no longer needed for its purposes, sell, trade or exchange such surplus real estate to or with any other public body or department, board, commission or officer thereof upon compliance with the terms of this chapter: Provided, That this shall not be applicable to any real estate acquired by a county at public sale for the payment of delinquent taxes. Except as hereafter provided, before such sale or trade or exchange may take place, the public body proposing to sell such real estate or in the case of a trade or exchange the public bodies proposing to trade or exchange real estate, shall file a petition with the circuit court or superior court of the county in which such public body or bodies are located requesting the appointment of three (3) disinterested freeholders of the public body in case of a trade or exchange, and appraisers to determine the fair market value of the real estate of such public body or bodies. Upon their appointment by such court, the appraisers shall proceed to fix the fair market value of the real estate owned by the public body of which they are freeholders and shall report the amount so fixed to the court within two (2) weeks from the date of their appointment. A public body may then sell such real estate owned by it to any other public body for an amount not less than the amount fixed as the fair market value by the appraisers, or in the case of an exchange, for an amount not less

1 ENGROSSED SENATE
2 BILL NO. 458

BY: STIPE, FLOYD, BOATNER, DENNIS,
TAYLOR, LUTON, JOHNSON, MILLER,
PIERCE, CATE, SHEDRICK, BROWN,
GILES, CHOATE, KELLER, GREEN, DAHL,
WINN, PORTER, WATSON, WRIGHT,
RHODES, ROBERTS, BRANCH, LANDIS,
HOPKINS, CULLISON, BOZELL and
TERRILL of the SENATE

and

GLOVER, BARKER, HENRY, HARBIN,
VAUGHN, McDONALD, WHORTON, HARRIS
(Robert), HOOPER, BROWN, VANATTA,
HOBBSON, STOTTLEMYRE, SMITH,
ROBERTS, SHURDEN, KELLY,
LITTLEFIELD, SCHROEDER, HAMILTON
(James), FOPMBY, SHERZER, ADAIR,
NEWBY, JOHNSON, MORGAN, RIGGS,
MANAR, LEWIS, DAVIS (Guy), HANEY,
ABBOTT, MONKS, WILLIS, CONVERSE,
ROSS, COMBS, GRIESER, MURPHY,
MENTZER, LAWTER, DUKE, PATRICK and
ANDERSON of the HOUSE

17
18 AN ACT RELATING TO MINES AND MINING; REQUIRING
19 CERTAIN ENTITIES OPERATING COAL-FIRED GENERATING
20 PLANTS TO BURN A MIXTURE CONTAINING A MINIMUM OF
21 TEN PERCENT OKLAHOMA MINED COAL; PROHIBITING
22 INCREASING COSTS AND IMPAIRMENT OF CERTAIN
23 CONTRACTS; PROVIDING FOR CODIFICATION; PROVIDING
24 FOR SEVERABILITY; PROVIDING AN EFFECTIVE DATE; AND
25 DECLARING AN EMERGENCY.

26
27 BE IT ENACTED BY THE PEOPLE OF THE STATE OF OKLAHOMA:

28 SECTION 1. NEW LAW A new section of law to be codified in
29 the Oklahoma Statutes as Section 939 of Title 45, unless there is
30 created a duplication in numbering, reads as follows:

31 All entities providing electric power for sale to the consumer in
32 Oklahoma and generating said power from coal-fired plants located in
33 Oklahoma shall burn a mixture of coal that contains a minimum of ten
34 percent (10%) Oklahoma mined coal, as calculated on a BTU (British
35 Thermal Unit) basis.

36 SECTION 2. NEW LAW A new section of law to be codified in
the Oklahoma Statutes as Section 939.1 of Title 45, unless there is
created a duplication in numbering, reads as follows:

The cost to the entity shall not increase the cost to the
consumer or exceed the energy cost of existing long-term contracts

1 for out-of-state coal preference including preference given Oklahoma
2 vendors as provided in Section 85.32 of Title 74 of the Oklahoma
3 Statutes.

4 SECTION 3. The provisions of this act are severable and if any
5 part or provision shall be held void the decision of the court so
6 holding shall not affect or impair any of the remaining parts or
7 provisions of this act.

8 SECTION 4. This act shall become effective January 1, 1987.

9 SECTION 5. It being immediately necessary for the preservation
10 of the public peace, health and safety, an emergency is hereby
11 declared to exist, by reason whereof this act shall take effect and
12 be in full force from and after its passage and approval.

13 Correctly Engrossed _____
14

15 Passed the Senate the 17th day of February, 1986.
16

17
18
19 _____
20 President of the Senate

21 Passed the House of Representatives the ____ day of _____,
22 1986.
23

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25 _____
26 Speaker of the House of
27 Representatives
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Missouri Opportunity
2000 Commission
Jefferson City, Missouri

Contact: Cheri Ghan/Gregg Hartley
Telephone: (314) 751-8731/751-5154
Release: EMBARGO until 9:30 a.m.
on 8-20-86

NOTE: A taped interview is available at
(314) 751-3664

BLUNT - "MISSOURI MUST REVERSE ENERGY DEPENDENCE"

Saying Missouri needs to deal with its energy dependency as we plan for the future, Secretary of State Roy Blunt today called for the exploration of several technologies of energy production. At news conferences in Springfield and Joplin and speaking to the Cassville Rotary Club, Blunt, who is co-chairman of the Missouri Opportunity 2000 Commission, pointed to energy production as one of the major areas where Missouri must make advances before going into the next century.

Citing a report prepared for the Commission by former Missouri Department of Natural Resources Director Fred Lafser, Blunt said the state could not afford to maintain its current dependence on outside energy sources. "This report says Missourians spend \$10 billion a year on energy, 90% of which is imported, with \$3 billion a year spent on gasoline alone. If the recent 30% reduction in gas prices holds for 12 months, around \$900 million dollars that would have gone into the economy of another state or country stays in Missouri." He adds that spending money on Missouri-generated energy would offer an even more direct benefit to the state's economy.

The Secretary of State said Missouri's utility rates are currently more competitive compared to rates in other parts of the country, but that we need to take advantage of the abundance of high sulfur coal in north and western Missouri. "There is a relatively new technology called fluidized bed combustion where you can cleanly and efficiently make energy out of this high sulfur coal. We have the coal, so we should explore the technology to use it," he said. Blunt said Missouri may want to encourage some of its own power plants to start converting their coal-fired burners to fluidized combustion units. With that approach, the high sulfur coal could be mined and used without creating an acid rain problem elsewhere. "Technology to use the energy sources we have is important to our future."

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Blunt said turning some industrial waste into energy is also a technology we should explore. "This could be an excellent way to solve part of our industrial waste problem. When it can't be recycled in a conventional method, some solid and liquid industrial waste can be processed through this same fluidized bed combustion method to produce energy."

Oil exploration was also listed by Blunt as a possible energy source for the future. "We know we have heavy oil in western Missouri between Joplin and Kansas City and near Lexington. This would be difficult to extract, but it is there. If oil prices climb again to more than \$50 per barrel, there would be justification for increased oil production." Blunt says as much as 16 million barrels of recoverable oil exist in western Missouri.

According to the Lafser report, there is still a possibility of finding a large reservoir of oil or natural gas in the boot-heel area of Missouri. Blunt says new drilling technologies would allow exploration in bed rock shifted by the 1812 New Madrid earthquake and "we should consider encouraging exploration to see what oil might exist."

The Secretary of State also listed continued efforts in the areas of solar energy and in developing rapidly growing, high energy yielding agricultural crops as potential Missouri energy sources for the next century. Possibly expanding the use of the Missouri and Mississippi Rivers as energy sources would allow us to utilize our "great natural resource of water" according to Blunt. "We might consider methods of free-flowing energy production from the rivers," Blunt noted.

Finally, Blunt said, Missourians must not forget energy conservation as the best answer to energy dependence. He said an expected 10 percent increase in energy costs in 1987 translates into approximately \$300 million more being spent here for energy. "That expenditure is unproductive in terms of our overall economy. I'd like to see us save as much as we can so those dollars can be spent on items where we can see longer-term benefits."